ESSENTIAL HOSPITALS INSTITUTE

Integrated Health Care

Literature Review

Integrated care is a major priority for America's Essential Hospitals and its members. Essential hospitals and health systems provide a range of inpatient and outpatient services for millions of patients across the country. Many of these patients are economically disadvantaged, non-English speaking or suffer from chronic disease. Providing safe, efficient and effective care in these complex settings is a challenge, which is accelerated by the requirements of the Affordable Care Act (ACA) of 2010. Integrated care delivery is a critical tool for addressing these challenges and helping safety net hospitals and health systems achieve the Triple Aim: cost-efficiency, better quality care, and a focus on population health.

America's Essential Hospitals' research affiliate, the Essential Hospitals Institute, conducted a study on integrated care in safety net hospitals with support from the Aetna Foundation. This project investigated these particular information gaps by developing a literature review, surveying all members, and visiting four member hospitals to determine the barriers to achieving system integration, strategies implemented by the most highly integrated safety net hospitals to overcome common barriers, and understand the outcomes of integrated systems.

The literature review featured here, initially completed in February 2012, provides a map of integrated care, especially as it relates to safety net hospitals and health systems. Given the span of the project and the rapidly changing landscape of healthcare policy, researchers updated this analysis in May 2013 to capture and reflect the most recent literature and current events impacting IDSs.

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PART 1: OVERVIEW OF INTEGRATION

Background

According to Armitage et al an integrated delivery system (IDS) provides a means to build a more effective and efficient health care system that takes a patient-centered focus and better meets the needs of the populations served. [i] There are currently more than 100 IDSs in the United States, especially in the West and upper Midwest.[ii,iii] Studies have found that implementing the IDS model can help the U.S. health care system achieve the triple aim of health care reform: better quality at a lower cost and a focus on population health.[iv]

The concept of the IDS emerged in the health care industry in the 1990s in response to the rapidly changing reimbursement environment.[v] At that time, many physician groups and hospitals consolidated through mergers and acquisitions to combat the threat of managed care to their bargaining power.[vi] However, these mergers eventually led hospital systems to incur massive debt without reducing costs or improving quality.[vii]In addition, low physician involvement in IDS organizational and strategic development led to overall physician discontent. Due to these types of missteps, most IDSs created in the 1990s failed.[viii]

Currently, there is a renewed interest in integrated delivery systems (IDSs) as a means of reducing costs and improving individual and population health. The landmark Institute of Medicine report, *Crossing the Quality Chasm: A New Health System for the 21st Century,* implied that significant structural changes such as integrated care delivery are needed to improve care coordination and achieve continuous quality improvement and accountability.[ix] The Affordable Care Act of 2010 is the most recent effort to comprehensively address cost reduction, quality improvement and integration. This historic piece of legislation supports the defragmentation of the health care system through multiple efforts (described in more detail in Part 2).

However, to reduce costs, physicians and hospitals require a payment system that is based on value (quality and cost) rather than volume, most likely in the form of advanced payment. But advanced payment methods are most feasible in highly organized, integrated systems of care. Without payment reform, physicians and hospitals have little incentive to integrate. But without integrated systems, advanced payment systems are difficult to test and implement.

Integrated Delivery System (IDS) Definitions

There are more than 70 terms or phrases related to health care integration and 175 concepts or definitions – evidence of the lack of clarity and agreement about the IDS concept.[x] IDS concept phrases include the following:

- Integrated health services
- Integrated delivery networks
- Integrated health care delivery

- Organized delivery systems
- Integrated health organizations
- Clinically integrated systems
- Organized systems of care
- Accountable care systems[xi,xii,xiii]

Varied definitions of IDS are provided in Table 1.

Table 1. Definitions of Integrated Delivery System (IDS)	
An organized, coordinated and collaborative network that: (1) links various health care providers, via common ownership or contract, across three domains of integration – economic, noneconomic, and clinical – to provide a coordinated, vertical continuum of services to a particular patient population or community and (2) is accountable both clinically and fiscally for the clinical outcomes and health status of the population or community served, and has systems in place to manage and improve them[xiv]	(Enthoven 2009)
A delivery system which "provides or aims to provide a coordinated continuum of services to a defined population and are willing to be held clinically and fiscally accountable for the outcomes and the health status of the population served"[xv]	(Lega 2007)
An organization which "uses corporate structure, strategic alliances, governance, management approaches, culture, financial practices, clinical information systems, and other tools to facilitate and insure delivery of this type of care"[xvi]	(Moore & Coddington 2008)
The management and delivery of health services so that the clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system[xvii]	World Health Organization's working definition of IDS (Pan American Health Organization 2008)
A network of organizations that provides, or arranges to provide, a coordinated continuum of services to a defined population and is willing to be held clinically and fiscally accountable for the health status of the population served[xviii xix]	(Pan American Health Organization 2008; Wan, Lin & Ma 2002)
An organization that, through ownership or formal agreements, vertically and horizontally aligns health care facilities, programs or services in order to offer a coordinated continuum of health care to a defined geographic population, and that is willing to be held responsible clinically and fiscally for the health status of that population[xx]	(Wan, Lin & Ma 2002)

Integration can occur at the system level or across a patient population.[xxi] The degree of integration depends on local market realities[xxii] and various factors including the extent to which providers are assimilated into the larger system and the proportion of health services that are fully integrated in the system .[xxiii] Most systems are in an ever-evolving state of integration, attempting to provide a full continuum of services in a user-friendly, one-stop-shopping environment that eliminates costly intermediaries, promotes wellness and improves health outcomes.

Horizontal and Vertical Integration

There are two main types of integration used in integrated delivery systems (IDS) – *horizontal* and *vertical.*

Horizontal integration is defined by the Pan American Health Organization as "the coordination of activities across operating units that are at the same stage in the process of delivering services." [xxiv] Horizontal integration involves grouping organizations that provide a similar level of care under one management umbrella. It usually involves consolidating the organizations' resources to increase efficiency and utilize economies of scale.[xxv] Examples of horizontal integration include the following:

- multihospital systems
- mergers
- strategic alliances with neighboring hospitals to form local networks[xxvi]

Some systems have demonstrated horizontal success by acquiring and combining prestigious hospitals and then achieving higher reimbursement rates from payers willing to pay more for their services.[xxvii] Examples of these systems include the following:

- Partners Health Care
- University of Pittsburgh Medical Center
- Sutter Health

Vertical integration is defined by the Pan American Health Organization as "the coordination of services among operating units that are at different stages of the process of delivery patient services." [xxviii] Vertically integrated systems are intended to address the following:

- Efficiency goals
    - manage global capitation
    - form large patient and provider pools to diversify risk
    - reduce cost of payer contracting
- Access goals
    - offer a seamless continuum of care
    - respond to state legislation
- Quality goals

Unlike horizontal integration, which integrates organizations providing similar levels of care under one management umbrella, vertical integration involves grouping organizations that provide different levels of care under one management umbrella.[xxix] This type of integration can include acquisitions/alliances with the following:

- Physicians (primary care providers, physician-hospital organizations, management service organizations, etc.)
- Health plans or health maintenance organizations
- Academic medical centers
- Long-term care facilities
- Home care facilities[xxx,xxxi,xxxii]

Kaiser Permanente is the most well-known example of a fully integrated delivery system.

- Kaiser Permanente operates in nine states, including Washington, DC, and has almost 9 million members, 14,000 doctors and 160,000 employees.
- The system owns and operates more than 420 freestanding ambulatory care facilities and 30 medical centers (hospitals and ambulatory).
- The medical centers offer one-stop shopping for most services including hospital, outpatient offices, pharmacy, radiology, laboratory, surgery and other procedures, and health education centers. This set-up encourages patient compliance and enhances opportunities for physicians at the primary care level to communicate and consult with specialists, hospital personnel, pharmacists, etc.[xxxiii]

Integrated Delivery System (IDS) Organizational Models

According to Shih,[xxxiv] there are four models of integration:

- Model 1 is an IDS or multispecialty group practice (MSGP) with a health plan, which is both provider and payer. This model involves physicians in strategic planning. Its advantages include enhanced collection and integration of data, utilization review and cost-control capacity. Duplication of services is greatly minimized.
    - Kaiser Permanente follows this model by serving only members in its health plan.
    - Geisinger Health System also follows this model, but serves patients outside of its health plan.
- Model 2 is an IDS or MSGP single-entity delivery system that does not own a health plan.
    - The Mayo Clinic is the world's oldest and largest integrated MSGP.
    - HealthCare Partners Medical Group is a nonprofit organized delivery system in greater Boston and eastern Massachusetts.
- Model 3 involves private networks of independent providers that share and coordinate services. Similar to the first two models, these networks include infrastructure services (e.g., performance improvement and care management). Other integration structures under Model 3 include the following:
    - physician-hospital organizations
    - management service organizations
    - group practices without walls
    - individual practice associations

    - California "delegated model" health maintenance organizations
- Model 4 includes government-facilitated networks of independent providers on both the state and local levels. Governments take an active role in organizing independent providers, usually to create a delivery system for Medicaid beneficiaries.
    - Community Care of North Carolina, a public-private partnership, is an example of this model.[xxxv]

Integrated Delivery System (IDS) Payment Models

According to Shih, the current predominant fee-for-service payment system fuels fragmentation and inhibits integration.[xxxvi] In response, policymakers aim to entice payers to move away from fee-for-service and toward bundled payment systems that reward coordinated, high-value care. Expanding pay-for-performance programs rewards high-quality, patient-centered care and stimulates greater integration.[xxxvii] Fortunately, the greater the integration in delivery systems, the more feasible these payment reforms become.[xxxviii]

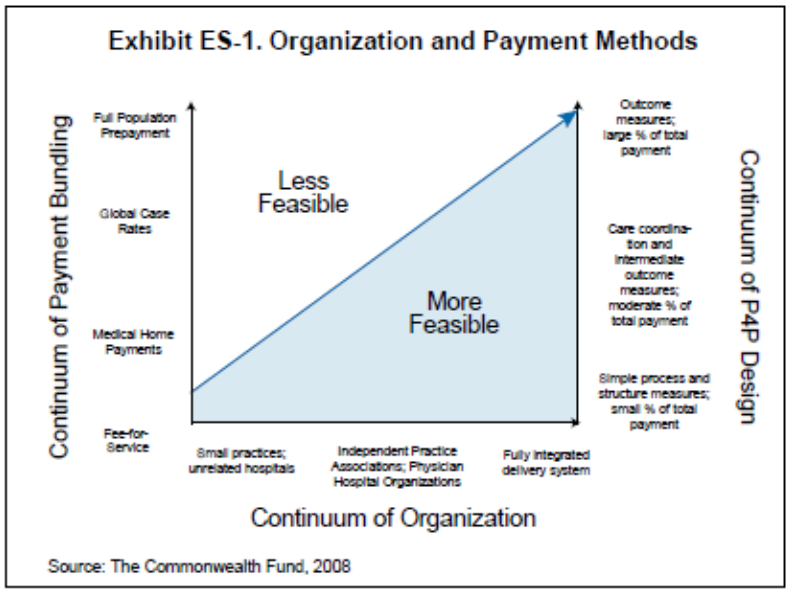
Various payment options are available to integrated delivery systems (IDSs), ranging from shared savings to full capitation[xxxix]):

- *Shared Savings*
  To promote hospital-physician collaboration, shared savings must explicitly reward hospitals for savings or be applied to organizational forms such as IDSs. Participants are rewarded for better outpatient care as defined by performance on quality measures. They are also eligible to share some of the savings from better overall cost control, particularly reduced hospitalization rates.
- *Blended Payment for Primary Care*
  This payment system recognizes additional services offered by primary care providers, including care coordination, health information technology, communication and remote monitoring. This system includes an enhanced payment for medical home practices, usually in the form of a per-member/per-month care management fee in addition to traditional fee-for-service payments for face-to-face encounters.
- *Episode-Based Payment*
  Episode-based payments are provided for the care of a patient over a period of time (longer than a single visit or hospitalization). Unlike fee-for-service, episode-based payments have the potential to encourage care coordination and efficiency. Episode-based payments are grouped into four broad categories:
    - payment for acute care episodes that include hospital services only
    - payment for acute care episodes that include both hospital and physician services
    - payment for chronic care episodes that include outpatient care only, such as diabetes care for 1 year
    - payment for chronic care episodes that include outpatient plus inpatient care
- *Bundled Payment*

Bundled payment combines payments to physicians and hospitals. Payments can be bundled for multiples services delivered by one provider, such as payment that covers admissions and readmissions for the same condition.[xl] According to the Center for Medicare & Medicaid Innovation (Innovation Center), bundled payments are believed to encourage doctors, hospitals and health care providers to work together and better coordinate care for patients throughout their experience. To this end, the Innovation Center is launching the Bundled Payment for Care Improvement, in which it will partner with providers who are committed to utilizing bundled payments.

- *Capitation or Global Payment*
  Under a capitation contract, a physician receives a fixed amount of money per patient, also called, per-member/per-month.[xli] This payment method shifts the financial risk to providers, as they are not paid extra for providing additional services and are expected to appropriately manage patient care. Full capitation, or global per-member, per-month payment, would strongly incentivize efficiency and coordination between hospitals and physicians. According to Crosson & Tollen, the proper pay-for-performance quality incentives would align capitation with better quality and protect against underutilization. In addition, there would be no incentive to increase revenue by increasing volume. [xlii] But unless there is risk adjustment for costlier patients, this system provides strong incentive for providers to attract healthy patients and avoid sick ones.

Exhibit ES-1 displays the continuums of integration, pay for performance and payment bundling. According to Crosson & Tollen, payers should adopt a flexible payment approach that promotes quality and efficiency, yet matches the capabilities of an organization's structure.[xliii] For example, payers could offer blended primary care payment for medical home models, global case rates for hospitals and a global prepayment/full capitation for more organized systems.[xliv]



Characteristics of a Fully Integrated Delivery System

After consolidating the literature on integrated care, America's Essential Hospitals found seven characteristic domains that encompass a fully integrated health care delivery system.[xlv,xlvi,xlvii,xlviii,xlix,l,li,lii,liii,liv]

Table 2: Components of a Fully Integrated Health System
Domain 1: Value-Driven Governance & Leadership:
• The board is very focused on integration and reflects all relevant stakeholders.
• Administrative leadership is very committed to promoting and implementing integration.
• Physician leaders are very committed to promoting and implementing integration.
• The organizational structure is very favorable to integrated care.
• Strategic, financial and operational planning toward integration is very clear and convincing.
• A culture of safety and teamwork is continuously taught and reinforced.
• Financial, quality and community benefit data are transparent throughout the organization and to the community.
Domain 2: Hospital/Physician Alignment:
• The system has a clear and convincing approach to aligning and integrating clinicians with hospital administration.

• Physician leaders frequently represent the interests of all system physicians.
• Physicians and administrators frequently participate in joint decision making.
Domain 3: Financial Integration:
• The system is well-prepared for assuming risk-based payment and has conducted considerable analysis of the implications.
• The system has a very good ability to manage contractual relationships with payers with sufficient staff/resources and compatible information systems.
Domain 4: Clinical Integration/Care Coordination:
• The system provides or contracts for the full range of services and sites of care needed to meet patient demand for preventive, ambulatory, acute, post-acute and behavioral health care.
• Strong evidence exists of accountability, peer review and teamwork among providers.
• Care is frequently delivered at the most cost-effective and appropriate setting.
• Transitions and handoffs between settings are effectively managed and need little improvement.
• Strong collaboration exists between the hospital system and social services.
• The system has almost fully integrated behavioral health programs into primary care.
Domain 5: Information Continuity:
• Electronic Health Records (EHRs) for each patient are accessible to all providers within the system and most community providers outside of the system.
• The EHR system can track all patient encounters and combine all data to system wide level for evaluation and benchmarking.
• EHRs can track health outcomes of patients with specific conditions within all physicians' panels.
Domain 6: Patient-Centered & Population Health Focused:
• The system has very good, complete data on sociodemographic, utilization, cost and health status characteristics of the populations it serves.
• The system's resources and services are well-matched to the needs of the populations served.
• The system provides significant social services to assist patients in accessing needed care.

• The system provides almost full or full, 24/7 access to care via phone, email or in-person visits.
• The system has trained all or nearly all staff in cultural competency skills.
• All providers have been trained in encouraging expanded patient/family/caregiver roles in decision making and self-management.
Domain 7: Continuous Quality Improvement & Innovation:
• The system frequently trains/develops employees to be future leaders.
• The system frequently tests strategic activities through pilot projects.
• Staff feel very empowered to innovate.
• Providers frequently employ evidence-based practices.

PART 2: OVERVIEW OF POLICIES FOR ACCOUNTABLE CARE ORGANIZATIONS, ELECTRONIC MEDICAL RECORDS, DUAL-ELIGIBLE POPULATIONS AND POPULATION HEALTH

The Affordable Care Act of 2010 (ACA) has multiple provisions that are designed to help hospitals create more integrated systems of care. The ACA currently has the potential to help safety net providers deliver accessible, high-quality care to vulnerable populations. However, these providers still face unique hurdles in implementing integrated care provisions given their financial constraints and other barriers.[lv] This section of the literature review focuses on policies regarding four distinct areas of concern for safety net hospitals:

- accountable care organizations
- electronic health records
- care for dual-eligible populations
- population health

Accountable Care Organizations (ACOs)

Kaiser Permanente is the most successful and widely known example of integrated care. However, other organizations have had difficulty achieving a level of coordination similar to Kaiser's. In response, the accountable care organization has emerged as a delivery model that promotes integration and addresses some of the issues organizations have encountered when attempting to integrate.[lvi] Accountable care organizations (ACOs) are provider-led organizations whose mission is to manage the full continuum of care and be accountable for the overall costs and quality of care of a defined population.[lvii] ACOs must be able to achieve the following:

- Provide and manage, with patient involvement, the continuum of care across different institutional settings, including at least ambulatory and inpatient care and possibly post-acute care
- Prospectively plan budgets and resource needs[lviii]
- Establish an administrative and governance structure that can provide leadership and accountability
- Measure costs, quality and outcomes of care and aggregate and report this data
- Serve sufficient numbers of patients within targeted diagnostic categories to detect statistically significant and clinically relevant differences from desired performance benchmarks
- Develop the necessary infrastructure of clinical information technology and work process redesign capability to continuously improve care[lix]

Within an ACO, individual providers are reimbursed on a fee-for-service basis, minus a withhold. This system is based on achieving documented quality improvements. It allows the ACO to cut costs and providers to share in the savings their ACO achieves. According to the Engelberg Center for Health Care Reform at Brookings, this shared savings approach provides an incentive for ACOs to avoid expansions in health care capacity that drive regional differences in spending and variations in spending growth without improving health. [lx] Devers & Berenson note that by

coupling provider payment and delivery system reform, the ACO is an ideal delivery system mechanism for U.S. health care reform.[lxi]

ACO Formation and the Medicare Shared Savings Program

The Affordable Care Act (ACA) formally authorizes the formation of ACOs through its Medicare Shared Savings Program. In October 2011, the Centers for Medicare & Medicaid Services (CMS) released the final rules health care organizations must follow in forming and implementing an ACO through the Medicare Shared Savings Program. The following points are included in these rules:

- ACOs will be held accountable for the cost and quality of care to a defined population of patients (at least 5,000 Medicare beneficiaries).
- ACOs will be able to share in up to 60 percent of any cost reductions achieved contingent on meeting an array of performance standards.
- An entity wishing to become an ACO must commit to a 3-year participation agreement, with the option of beginning its first performance year at one of three time periods: April 2012, July 2012 or January 2013.[lxii]
- The second performance year will run through fiscal year (FY) 2014, and the third performance year FY 2015.
- Medicare beneficiaries will be assigned to ACOs based on where they received specified primary care services for the most recent 12 months.[lxiii]
- ACOs will be notified in advance about the patients for whose cost and quality of care they are likely to be held accountable. Quarterly updates on the list of patients and information about them will be provided. This point is an important change included in the final rule. The proposed rule would have identified patients at the end of each performance year and provided data annually. Knowing in advance the patients for whom they are being held responsible should give ACOs a better opportunity to focus on improving patient care and assessing patient progress.[lxiv]
- ACOs must report on 33 performance measures in year 1 to satisfy pay-for-reporting requirements. In year 2, 25 of the measures will be based on actual performance. In year 3, 32 measures will be based on performance.
- ACOs will be able to choose between two payment models: one-sided or two-sided.
    - Under the one-sided model, ACOs will receive bonus payments from CMS if they reduce Medicare expenditures below target amounts.
    - Under the two-sided model, ACOs share in costs in excess of spending targets, as well as any savings achieved for expenditures below target amounts.[lxv]
    - In the future, the two-sided, or shared-risk contract, will become the permanent model for ACOs entering into a contract with Medicare.

Where are ACOs now?

Since 2011, the number of ACOs in the United States has more than doubled. As of February 2013, 428 ACOs existed in 49 states, the District of Columbia, and Puerto Rico. According to experts at the Advisory Board Company, the Medicare Shared Savings Plan (MSSP) enrolled a

total of 259 across 44 states, the District of Columbia, and Puerto Rico, including an additional 106 as recent as January 2013. [lxvi] The additional 178 ACOs around the country operate within the private sector, offering varied payment models such as the MSSP's shared savings model, full or partial capitation models, bundled payments, retainer agreements, in-kind services, and subsidies provided by payers and pay-for-performance incentives. Many ACOs allow both, contracting with CMS and a private payer.

While research and data evaluating the success of ACOs is inconclusive, many providers are generally satisfied with the changes and support offered by the CMS innovation center, for example, shifting payment models and care coordination. But definitive research on whether or not developing an ACO is the correct framework to achieve quality and efficiency goals does not exist.[lxvii]

Furthermore, although many healthcare organizations are transitioning to ACO models, ACOs are still a minority model of care. Research suggests that many organizations are waiting to transition until initial results from these models emerge. It will take time for CMS to develop standards and for the most successful model(s) to emerge. This is because, according to Meyer, it will take some time to improve US population health and get Americans to use healthcare services differently. [lxviii] Muhlestein notes that early adopters will complete their first year under a risk-based contract later this year, and if the results are "good" ACOs may become the dominant form of healthcare over the next decade. [lxix]

Safety Net Accountable Care Organizations (ACOs)

America's Essential Hospitals recognizes the need for an ACO option for safety net hospitals serving large numbers of low-income patients. To this end, the association has crafted a potential Safety Net ACO Demonstration Project similar to the Medicare Shared Savings Program. This safety net ACO program proposes to accomplish the following:

- Test an accountable care model designed specifically for providers serving low-income populations
- Prepare for the implementation of coverage expansion in 2014 by
    - encouraging the evolution of safety net health systems
    - readying populations for coverage and supporting appropriate care-seeking behavior
- Test and support strategies for
    - enhancing the care experience for low-income, vulnerable populations
    - providing integrated, high-value care for dual-eligibles
    - improving the health of the populations served by these unique providers
    - controlling the cost of care
- Support flexible models that can be tailored to work within varied state Medicaid programs and through varied local safety net delivery systems
- Develop and test performance metrics focused on low-income populations

- Improve population health, regardless of payer, and work with local health departments and other community-based organizations
- Align disparate (and varied) funding streams to support accountable care

Electronic Health Records (EHRs)

Electronic health information systems are critical to providing integrated care. One of the major components of an integrated delivery system (IDS) is a health information system that can collect patient-level data through an electronic health record (EHR) and aggregate data to systemwide level for evaluation and benchmarking. According to Hillestad et al., effective adoption of EHRs can lead to major cost savings, reduce medical errors and improve health. [lxx]

The first of two major pieces of health reform legislation relating to the adoption of information systems such as EHRs is the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH Act), which provides incentives for physicians to invest and engage in meaningful use of HIT. The second is the Affordable Care Act (ACA), which aims to build upon the EHR infrastructure and meaningful use established through the HITECH Act by addressing its goals of reducing costs and improving care and population health. Specifically, the ACA promotes the use of HIT systems in four ways:

- Support more sophisticated use of EHRs and other HIT to improve health system performance
- Better manage care, efficiency and population health through EHR-generated reporting measures
- Demonstrate HIT-enabled reform of payment structures, clinical practices and population health management
- Support new approaches to the use of HIT in research, public and population health and national health security[lxxi]

Integrated Care for Dual-Eligible Populations

There are currently nearly 9 million people in the United States considered dual-eligible,[lxxii] i.e., those who qualify for both Medicare and Medicaid. A majority of them (5.5 million) are low-income seniors age 65 and older. According to Kaiser, the other 3.4 million are younger people with disabilities. [lxxiii] Kaiser also notes that dual-eligibles compose 15 percent of all Medicaid enrollees and are more likely to be a poor, sick and challenging population to manage. [lxxiv] In 2008, the majority of dual-eligibles had an annual income below $10,000 and cognitive impairment.[lxxv]

Table 3: Characteristics of Dual-Eligible Beneficiaries	
Income of $10,000 or Less	55%
Cognitive/Mental Impairment	54%
Below High School Education	52%
Fair/Poor Health	50%
Minority Race/Ethnicity	46%
Long-Term Care Resident	15%
Source: Kaiser Family Foundation analysis of the Medicare Current Beneficiary Survey 2008	

Because of their poor health status, dual-eligibles use a high volume of health care services and are expensive to manage.

- According to Pham, an analysis of claims data from 2000 to 2002 found that the average Medicare patient sees two primary care physicians and five specialists over four practices. [lxxvi]
- The American Hospital Association notes that in 2011, the health care–associated costs of dual-eligibles are expected to exceed $315 billion, almost one-third of overall annual government health care expenditures.[lxxvii]

Integrating care for dual-eligible populations is difficult because two different programs with diverse coverage and payment structures pay for their expenses: Medicare and Medicaid.

- Medicare is considered the primary payer for dual-eligibles and covers the cost of acute services and outpatient visits.
- According to Rosseau, on average, Medicare covers 55 percent of dual-eligible total expenses.[lxxviii]
- Medicaid fills in the cost gaps left by Medicare and reimburses primarily for long-term care services.[lxxix]

Provider efforts to improve care coordination for dual-eligibles have been offset by the current incentives for Medicare and Medicaid to shift costs to the other payer.

- For example, Medicaid plans have no incentive to increase payment for long-term care or other services because the potential savings would most likely accrue to Medicare through reduced readmissions, ED visits and hospitalizations.
- Meanwhile, according to the AHA Committee on Research, Medicare has no financial incentive to improve discharge planning to reduce long-term care stays.[lxxx]

A system such as this contributes toward fragmentation and duplicative or missed services.

Programs and Policies for Dual-Eligible Populations

Recognizing the problem of serving dual-eligibles and the high cost burden placed on Medicare and Medicaid, some states have developed delivery system models aimed at integrating care for dual-eligibles. The three models are as follows:

Special Needs Plans (SNPs): SNPs, introduced in 2003 as a type of Medicare Advantage plan, integrate funding from Medicare and Medicaid for unique populations (such as dual-eligibles) at the plan level through a managed care organization. There are three subtypes of SNPs:

- Chronic Condition SNPs (C-SNPs)
- Dual-Eligible SNPs (D-SNPs)
- Institutional SNPs (I-SNPs)

Each subtype has its own eligibility requirements regarding specific diseases and patient characteristics. The administrator of the SNP is responsible for building care coordination among providers.

Program of All-Inclusive Care for the Elderly (PACE): PACE is operated by a provider group, which coordinates and manages care for elderly adults and receives payment from Medicare and Medicaid at an agreed-upon, per-member, per-month rate. To be eligible for PACE, a person must be 55 or older and certified by the state as a nursing home–eligible individual.[lxxxi] According to Fretwell, in 2010, 75 PACE programs operated in 29 states. [lxxxii] The Elder Service Plan of Cambridge Health Alliance (an America's Essential Hospitals member) is a PACE provider that allows individuals not eligible for Medicaid to enroll as private pay participants.

Medicaid Managed Care Plans: These models vary, but generally either include fee-for-service with an additional payment to cover care coordination or a capitated payment – or set fee per patient – to cover all services. Capitated is a more risk-based model.

The Affordable Care Act (ACA) attempts to address some of the barriers to integrated care delivery for dual-eligibles. It established two new federal entities, the Federal Coordinated Health Care Office (Duals Office) and the CMS Innovation Center (Innovation Center). These entities will invest federal funds to improve care coordination for dual-eligibles. They have already issued 15, $1 million dollar contracts to states to help them coordinate care specifically for dual-eligibles. Most of the 15 state contracts build upon SNPs and/or interdisciplinary team care such as PACE programs.

The ACA also created a subtype of Dual-Eligible SNPs called Fully Integrated Dual-Eligible (FIDE) SNPs to promote better integration and coordination under a single managed care organization.

- FIDE SNPs must include all Medicare and Medicaid benefits, including long-term care, and have a contract with state Medicaid agencies.
- The managed care organization must coordinate delivery of benefits using aligned care management.

- FIDE SNPs must provide specialty care networks for high-risk enrollees.
- Beginning in 2012, all SNPs must be approved by the National Committee for Quality Assurance.[lxxxiii]

Population Health

The University of Wisconsin Population Health Sciences defines population health as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group. These groups are often geographic populations such as nations or communities, but can also be other groups such as employees, ethnic groups, disabled persons, prisoners or any other defined group."[lxxxiv] The model promoted by this research institute shows that hospital policies and programs can affect health determinants/factors, which in turn can affect health outcomes.

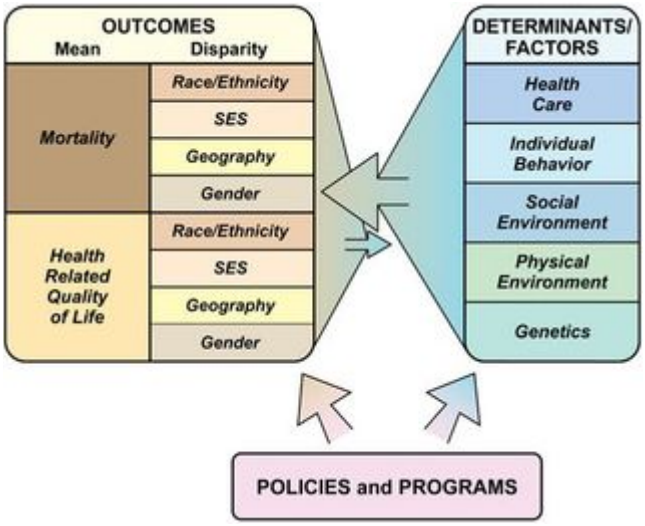


Figure 1[lxxxv]

A well-integrated hospital system must work with community organizations, particularly local public health systems that have traditionally focused on population health and integration, to address health determinants. Hospitals focused on population health have been known to do the following:

- Establish medical home programs
- Develop disease registries
- Form partnerships with the local public health department
- Conduct community health assessments to better understand patients
- Participate in or lead communitywide prevention efforts

Medical Homes

A medical home is a health care delivery site where patients have a continuous relationship with a personal physician who provides patient-centered, coordinated and high-quality care with adequate reimbursement mechanisms to cover all provided services.[lxxxvi]

The National Committee for Quality Assurance (NCQA), which accredits medical homes, defines the term as "a model for care … that seeks to strengthen the physician-patient relationship by replacing episodic care based on illnesses and patient complaints with coordinated care and a long-term healing relationship."[lxxxvii]

Medical homes can address population health by targeting health determinants and health outcomes of particular populations. There are currently 151 designated medical homes within America's Essential Hospitals' member hospital systems. Although some of the association's member medical homes serve the general adult population, most target specific vulnerable populations. Several programs focus exclusively on a specific demographic group:

- pediatric patients
- the elderly
- the uninsured, underinsured and Medicaid patients
- patients with no primary care physician
- frequent users of the emergency department for primary care services
- the homeless

Disease Registries

A disease registry is a population health tool for tracking the clinical care and outcomes of a defined patient population. Most disease registries are used to support care management for groups of patients with one or more chronic diseases, such as diabetes, coronary artery disease or asthma.[lxxxviii] Registries can support population health efforts in the following ways:

- Providing physicians with performance feedback reports on patient indicators
- Providing physicians with exception reports that identify patients who are not receiving care according to practice guidelines or who remain out of therapeutic range
- Creating point-of-care clinician reminders that summarize a patient's care management tasks and identify which tasks are due
- Generating reminder notices to be sent to patients when care management tasks are due
- Creating high-risk lists showing which patients require more intensive management.[lxxxix]

Population Health Policies in the Affordable Care Act (ACA)

The ACA encourages hospitals to work more closely with public health departments through two key provisions. These provisions require not-for-profit hospitals to better justify their tax-exempt status by conducting or participating in a community health needs assessment and then working to address the identified needs.[xc] However, the ACA only provides a framework on how to approach these two objectives. The situation encourages collaboration between not-for-profit hospitals and public health agencies on community health planning.[xci] Some questions have arisen based on the non-specificity of the provisions:

- Should the not-for-profit hospital or the public health agency take the lead on the community health needs assessment?

- Does a not-for-profit hospital whose service area covers several different counties or multiple public health agency jurisdictions work with all of these agencies separately?

PART 3: INTEGRATION AND IMPLICATIONS FOR SAFETY NET HOSPITALS

Value of Integration

America's Essential Hospitals, along with many other organizations, is promoting integrated care as a means to address the current fragmented health care delivery system. However, very few studies have been conducted that can point to measurable, positive outcomes of integrated delivery systems (IDSs). Integration is a complex undertaking, as is measuring it. Because calculating integration is so new, established measures that suit any given purpose are not yet available.[xcii] However, progress is being made on developing these standards.

- Several organizations have developed possible indicators of integration.
- In 2006, the National Quality Forum (NQF) endorsed a definition and framework for care coordination comprising 25 preferred practices organized into five domains, and 10 performance measures of care coordination.
- Several health care organizations have also developed surveys for their staff to evaluate their progress in becoming more integrated. For example, the Upper Midwest Health Care System developed a staff survey to measure their progress in becoming an IDS.[xciii]

According to Armitage, at this point, studies that have evaluated integrated delivery systems (IDSs) have focused mostly on the perceived benefits of integrated care, but have not been able to truly quantify these benefits.[xciv] A systematic review of the literature reporting IDS outcomes demonstrated the following mixed results:

- Some studies have found improved financial performance in integrated systems, but other studies found no improved financial performance.
- After integrating care, Denver Health reported a reduction in emergency department visits and inpatient length of stay.
- One study showed increased staff satisfaction, cooperation, teamwork and communication, but the frontline staff also felt more challenged.
- Another IDS found the new skills and knowledge needed to work in an integrated health care team resulted in workload and staff retention challenges.[xcv]
- One study found no consistent effects of an IDS on patient-perceived care coordination. This study concluded that when designing and implementing an IDS a patient-centered approach to integrating financial, administrative and contractual processes is necessary for increased patient satisfaction.[xcvi]

The association between integrated care and better financial performance, patient outcomes and employee satisfaction is somewhat mixed. But several studies have found a positive association between integration and higher quality and efficiency.

For instance, when compared with independent physician associations (IPAs), integrated medical groups in California achieve a higher level of clinical quality and are more likely to

- use electronic health records (EHRs),
- follow quality improvement strategies,
- collect patient satisfaction data, and
- offer health promotion programs.

According to Enthoven, health maintenance organizations (HMOs) with physician employees or those that partner with physicians tend to score higher on clinical measures than HMOs with independent physician networks.[xcvii]

Accountable Care Organization (ACO) Outcomes

Because ACO pilot programs have only been in existence for the past several years, most evaluations thus far have focused on structure and process. Very few have been able to evaluate ACO pilot outcomes. However, an impact evaluation of the Centers for Medicare & Medicaid Programs (CMS) Physician Group Practice Demonstration, which has a shared savings payment structure similar to the Medicare Shared Savings Program, was completed in 2011.

According to Wilensky, the 5-year demonstration project had the following results: [xcviii]

- The participating physician groups performed well on the quality metrics.
- All 10 participating physician groups achieved benchmark-level performance on 30 of 32 quality measures.
- Some criticized the program for relying too heavily on process over outcome measures.
- According to Haywood and Kosel, the cost savings achieved by the physician groups were minimal.
    - Data indicated that 8 of the 10 physician groups did not receive any shared savings payments in year 1.
    - By year 3, half of the groups still were not eligible for any shared savings to offset their initial investment.[xcix]

Patient experience of care was not evaluated.

Dual-Eligible Program Outcomes

The outcomes of Program of All-Inclusive Care for the Elderly (PACE) for dual-eligible populations (described earlier in the literature review) appear promising. Studies evaluating PACE programs have demonstrated that it can reduce

- emergency department visits,
- hospital admissions,
- readmissions, and
- mortality.[c]

Measuring success of dual-eligible programs can be difficult, especially in the short-term.

Value of Electronic Health Record (EHR) Systems

Studies on EHR adoption and its impact on integrated care have been well documented. According to Chen et al.,[ci] Kaiser Permanente (KP) implemented KP HealthConnect in 2004 to ensure:

- comprehensive documentation across health settings,
- real-time connectivity to lab and other ancillary systems,
- secure patient-provider messaging through a member website, and
- interprovider messaging about care, which is incorporated into patient records.

KP found that an integrated and comprehensive EHR system shifts the pattern of ambulatory care toward more efficient contacts for patients and providers, while maintaining quality of care and patient satisfaction.

According to Hillestad, other benefits of EHRs include the following:

- Integration of evidence-based recommendations for preventive services, such as screening exams, with patient data (age, sex and family history) to identify specific services for each patient
- Increased patient compliance with preventive care recommendations, such as when EHR systems remind physicians of routine visits and care
- Enhanced disease management due to features including
    - physician reminders to offer necessary tests during the patient's visit,
    - tracking mechanisms that record the frequency of preventive services, and
    - templates with condition-specific recordings, which have shown to lead to better clinical decisions and health outcomes
- Increased communication between multiple specialists for higher-risk patients:
    - More advanced interoperability systems can send patient data and vital signs directly to other providers.
    - Nurse case managers can respond quickly to incipient problems.
    - Patients with multiple providers and who have multiple chronic illnesses will obtain great benefits from EHRs. [cii]

Barriers to Integration

According to Crossen and Tollen, barriers to forming integrated health care systems or accountable care organizations (ACOs) fall into six categories:

- Legal and regulatory
- Governance
- Operational
- Cultural
- Academic medical center–specific
- Safety net–specific[ciii]

Legal and Regulatory Barriers:

- Collaborations that involve the merger of competing physician practices could raise legal issues under the Clayton Act and the Sherman Act.
- Some laws limit the structure and conduct of tax-exempt organizations.

Governance Barriers:

- There are usually two forms of governance within hospitals that have competing priorities and cultures – the hospital board and the medical staff leadership.
- Hospital board members typically lack a health care background or clinical expertise and are not prepared to evaluate quality issues.
- Because of its loose structure and emphasis on individual physician interests, medical staff governance is not well suited to promoting collective responsibility for quality and operational efficiency.
- Commonly, medical staff leaders cannot render decisions on important policy and organizational matters in a timely manner because they require support of all or most of the physicians.

Operational Barriers:

- Multispecialty groups are difficult to form due to income disparity of various specialties.
- There is a lack of payment methodologies that promote group function.
- Competition exists between hospitals and physician groups.
- Hospitals have different business cultures than physician groups.
- Physicians disconnect from hospitals.
- A lack of consistent quality performance measures exists for hospitals and physicians.
- Different information systems exist.
- Some physicians cannot see the value in integration.

Cultural Barriers:

- A high degree of competition in the local health care market creates unfavorable conditions for hospital and physician alignment.
- Physician practices do not typically engage in formal, long-term strategic planning, and small practices do not usually participate in continuous quality improvement.
- Hospital leaders work in meetings, but physicians value time spent in direct patient care.

Academic Medical Center–Specific Barriers:

- In addition to the hospital board and medical staff leadership, academic medical centers have to coordinate with university faculty, who have their own governance structure.
- The hospital has to balance the competing priorities of patient care, teaching and research.
- Successfully caring for patients with an unusual or complex disease almost always involves more than one specialty. Strong department structures can be an impediment to creating multidisciplinary teams.

Safety Net Hospital–Specific Barriers:
A survey of safety net leaders revealed that despite interest in forming an accountable care organization (ACO), they had the following concerns about the readiness of their systems to join or form an ACO:

- Safety net providers, especially smaller systems and providers with limited experience accepting risk through Medicaid managed care, may not be prepared to assume financial risk.
- Uncertainty exists regarding whether safety net providers will be able to form and maintain effective provider partnerships, given the competitive environment for insured patients, antitrust concerns and weak relationships with tertiary and subspecialty providers.
- Ensuring payment predictability—such as through a base payment—while providing a structure that moves toward value- or performance-based payments that are adjusted for case mix is challenging.
- Safety net providers have limited funds to invest in ACO development, as well as inadequate financial reserves to cover potential losses.
- ACOs have limited capacity to share data across information technology systems.
- The culture of some safety net providers may be resistant to or ill-equipped for change.[civ]

Barriers to Electronic Health Record (EHR) Implementation:

According to Hillestad, only 20 to 25 percent of all hospitals have adopted EHRs. Lack of adoption can be attributed to high costs, lack of certification and standardization, and concerns about privacy. [cv] EHR deployment faces multiple barriers, which often hinder EHRs from reaching their full potential. McGinn sheds light on these issues: [cvi]

- Cost issues: Health care professionals and patients have noted their concerns about high costs, while managers and physicians are concerned about lack of resources and funding, high start-up costs, high ongoing maintenance costs and uncertainty around return on investment.
- Design or technical concerns: Concerns surround technical limitations related to software or hardware and system problems such as slow system speed and unplanned downtime. Organizations are also concerned that systems would become obsolete among ever-changing technology.
- Privacy and security concerns: Users have expressed concern that EHRs may compromise security or confidentiality of patient records or information.
- Lack of time and workload: Physicians with heavy workloads are concerned about a lack of time to acquire, implement and learn to use EHRs. They also feel that utilizing EHRs can take time away from their real work – clinical tasks.

- Motivation: A lack of knowledge or interest in EHRs can serve as a barrier to adoption. However, motivation can be encouraged, as users display positive attitudes toward the benefits of EHRs.
- Productivity: EHR adoption can affect workplace efficiency and communication positively and negatively. For example, employees have cited decreased job performance during the transition period, which may be seen as a barrier to adoption.
- Perceived ease of use: Some EHR systems have been perceived as user-friendly. Others have been associated with design and technical issues, which can be a barrier to adoption.
- Patient and health professional interaction: Health care providers believe EHRs can negatively impact patient interaction by decreasing physical and relationship contact with patients, challenging physicians and nurses to provide direct care and emotional support.
- Interoperability: An inadequate ability to exchange information with multiple organizations is perceived to lead to negative outcomes and has been reported as a barrier. For example, inadequate connectivity could lead to erratic reporting of test results.
- Familiarity, ability with EHR: It has been reported that physicians generally feel familiar with computers and can easily use them. However, managers have expressed concerns with patient computer literacy and lack of knowledge on EHRs.
- Communication: According to Kaplan and Harris-Salamone, several communication barriers exist, which can affect workflow: [cvii]
    - Individuals gathering information might not include all the necessary people within an organization.
    - Individuals may have issues effectively communicating system requirements or implementation protocols.
    - Senior management or information technology (IT) may not understand the clinical environment or disagree on what needs to be done.
    - Managers may not provide sufficient or meaningful incentives to change.

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