The Iron Triangle of Health Care: Implications for the Long-Term Care Environment

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ABSTRACT

This paper provides an analysis of the current long-term care environment based on the concept of the Iron Triangle of Health care: Quality, access, and cost-containment. These are evaluated and examined in relation to stakeholders in long-term care, including Hawaii. Analyzing this relationship provides greater understanding to appropriate decision making made by long-term care stakeholders. This analysis discusses the importance of each factor and its influence on outcomes in the long-term care environment. Based on this study, implications, and strategies for stakeholders to address quality of care, access to care, and cost-containment in long-term care are recommended.

Keywords: *Long-term care, Quality, Access, Health Care Cost, Health Care, Iron Triangle of Health Care*

INTRODUCTION:

The Iron Triangle of Health Care is a framework made up of three identical priorities – quality, access, and cost – used in the health care industry. The purpose of this paper is to explain how this framework fits into the long-term care (LTC) environment and specifically to describe the significance of each factor to LTC in Hawaii. In addition, it is important to understand the importance of each factor and its influence on outcomes, but the analysis is not to determine whether the three factors can hold equal priority when making LTC decisions.

The Iron Triangle of Health care:

The Iron Triangle of Health Care identifies three factors – quality, access, and cost-containment – to consider when making health care decisions. Each factor has equal angles, representing identical priorities, and an expansion of any one angle compromises the other two angles, making trade-offs inevitable.[1] Stakeholders, such as consumers, providers, payers, and government, must make choices in health care based on these factors. Consumers decide whether they are willing to pay more for services because cost is often related to access to services and high-quality health care. Providers establish criteria determining which patients to accept (access) because the practice is driven by payments and reimbursements and accepting more patients means higher costs to ensuring high-quality care. Health payers select who they will pre-/authorize services to (access) because of insurance types (cost) and available providers (quality). Finally, government regulates providers and payers to ensure quality of care and contain costs often trading access for specific groups of consumers. How these decisions are made and what each stakeholder is willing to give up, ensuring the other factors are met, depends on who the stakeholders are and his/her/their priorities. Most times, these decisions are individualized and while commonalities are often found, the differences can affect how the Iron Triangle shifts.

The Long-Term Care Environment:

Long-Term care encompasses everything from long-term services, supports, and finances, to where a person lives and how he/she will navigate the myriad of legal, family, and social dynamics along the way.[2] Long term care includes a range of services and supports individuals may need to meet their health or personal needs over an extended period of time.[3] In the LTC environment, service and support decisions should be consumer-driven, giving priority and decision-making authority to consumers based on their needs, rights, and responsibilities.[4, 5] In "Criteria for Designing or Evaluating a Long-Term Care System" (1993), authors outlined six (6) individual criteria, when taken as a whole, guide providers to the ideal LTC system.[4, 5] The criteria can be used as measures for Long-Term Care Services and Support (LTSS) providers in meeting systemic and organizational goals and to explain the relationship of LTC to the Iron Triangle of Health Care. Criterion I focuses

on quality of care, criterion II on access to care, and Criterion V on cost.[5] While developed over 30-years ago, the tenets continue to be relevant.

LTSS providers are categorized as institutional or non-institutional providers of care. Institutional care provides a variety of medical and supportive care including, but not limited to, 24-hour supervision, medical or nursing care, rehabilitation services, and assistance with activities of daily living within a facility. Meals, housekeeping, laundry, medication assistance and management, social and recreational activities, and transportation services are also available. Non-institutional care provides medical and supportive care outside of the facility or in the consumer's home. These providers offer social interaction and activities, transportation, assistance with activities of daily living (ADLs), meal preparation, light housekeeping, companionship, respite, and assistance with errands and shopping. Nursing care, rehabilitation, wound management, and specialty services are also available through community-based service providers.

As of 2016, there were an estimated 15,600 nursing facilities, 28,900 residential care, including assisted living, communities, 4,300 hospices, 12,200 home health agencies, and 4,600 adult day care service centers in the United States.[6] Statistical information by the U.S. Department of Health and Human Services, estimates that someone turning age 65 has an almost 70% chance of needing some type of LTSS in their remaining years.[7] Twenty percent of this group will need LTC for longer than five years. Most consumers needing LTC will get services at home (65%), while those getting services in facilities will be less (37%).[7] 2017 National Population Projections for consumers aged 65 years and older, is expected to increase from 4.9 million in 2016 to 7.3 million in 2030 to 9.4 million in 2060.[8] Will there be enough LTSS providers to meet the needs of this growing population remains to be seen.

The Iron Triangle and Long-Term Care:

The Iron Triangle of Health Care assumes three factors; access, quality, and cost-containment could be equal when addressing issues in health care. Dr. William L. Kissick, one of two physicians who wrote the law establishing Medicare in 1965, named these three factors as "priorities" that had equal and identical value in health care decisions.[1] Unfortunately, even Kissick believed expanding any one angle in the triangle, i.e., giving one factor more weight than another, meant one or both of

the other factors had to be compromised.[1] Even today, twenty-five years later, health care stakeholders, including consumers, providers, payers, and the government, struggle to make the Iron Triangle of Health Care work, rationing resources, including access to services, cost of services, and quality of care.

The interrelationship of access, quality, and cost-containment can be described in the following summarizations: As quality of care and life increases for the consumer, the cost of care increases because there is cost attributed to improving care quality including implementing new regulations. If new regulations increase the need for education and training, costs are affected; policy development and implementation, costs are affected; new staff, equipment, processes, or changes to the physical environment, costs are affected. Regulations and laws provide guidelines for the minimum standards of care that must be implemented equally to every consumer who accesses those services. For many consumers, quality of care and life requires more than just minimum standards to be valued. With consumers wanting to age-in-place and programs to compensate or support informal caregivers, spending (cost) for institutional care should decrease and spending (cost) for community-based services increase. This increase will be lower overall because the cost to care for someone in the community is, oftentimes, less than in an institution. Caregiver "allowance" programs, Consumer-directed attendant care programs, and "mixed" models are among the types of programs available across the nation to compensate informal caregivers.[9]

Mor, in 2011, conducted research on residents' experiences of quality, facility costs, and regulations in nursing homes and concluded that while cost and quality were influenced by regulations, the interrelationship was still unclear.[10] Additionally, Mor concluded, further research focusing on a single aspect of quality that was related to a measure of cost that was related to a regulatory inspection deficiency, was needed to better understand the relationships.[10] The factors of cost and quality are broadly defined, and its influences affected by multiple causes and circumstances. While many regulations LTSS adhere to are under federal authority, states determine how these regulations are applied in each form of LTSS. This system complicates the research process because the definitions and influences of cost and quality may be state/locale specific.

The Iron Triangle assumes each factor – quality, access, and cost - are identical priorities and each should have equal weight when making health care decisions however, research supports the Iron Triangle as unrealistic. Infinite needs versus finite resources and the obligation to provide access to

an adequate level of care to all patients, regardless of their ability to pay, supports the notion that LTSS providers will have different priorities at different times.[1, 11] Looking at the Iron Triangle and its relationship to the LTC environment and LTSS providers is important because the Iron Triangle provides a mechanism by which LTC stakeholders base decisions. LTC is reimbursement-driven meaning reimbursements is the ultimate driver of decision-making. LTC consumers' access to services and quality of care hinges on payments made for services rendered. The services provided in the LTC environment is based on payments received.[5]

The Iron Triangle and Long-Term Care Services and Support (LTSS) in Hawaii:

The Iron Triangle of Health Care, while designed for the entire health care industry and all its components, can be a framework for LTSS in Hawaii. LTC is one of the most regulated industries in the United States, second only to the nuclear energy industry. In 2016, CMS issued a final rule that made major changes to improving the care and safety of consumers in Medicare and Medicaid participating LTC facilities. The Requirements of Participation's (ROP) finalized provisions reflecting advances in service delivery and safety and implementation of sections of the Affordable Care Act (ACA) including compliance and ethics, quality assurance and performance improvement (QAPI), dementia and abuse training, and discharge planning. Themes of the final rule, among other priorities, included person-centered care and quality of care and quality of life, overarching principles for every LTSS provider.[12] While the ROP was designed for those LTSS providers receiving Medicare and Medicaid payments, primarily nursing facilities, the priorities translate to all LTSS providers. If this ROP was meant to increase the quality factor in the Iron Triangle, how then does this change affect access to services and cost.

Cost:

Payers of LTSS include Medicare, Medicaid, VA insurance, long-term care insurance, private insurance, and out-of-pocket. Different service providers accept different forms of payment based on business practices and regulatory requirements. For example, Medicare will pay for LTC services if the consumer requires skilled nursing or rehabilitative care. Medicare will not pay for assistance with ADLs if no other skilled or rehabilitative care is needed. Medicaid pays for most LTSS and is based

on the amount of assistance a consumer needs with ADLs. VA insurance pays for LTC services but only for qualified individuals. LTC insurance and private insurers pay for services based on their own rules and requirements.[13] Medicaid is the primary payer in the LTC environment. A literature review on reducing Medicaid spending in LTC by Weiner, Romaire, Thach, Collins, Kim, Pan et al. discovered several key findings including tightening Medicaid eligibility rules; promoting LTC insurance; expanding home and community-based services; and increasing the use of managed LTSS. The researcher's conclusions suggested, there was no strong evidence of achieving large Medicaid savings through adoption of these policies.[14]

A cost of care survey by Genworth (2019) provided a high-level overview of the national median rates for various types of LTSS. In the survey summary, national median rates for nursing home facilities ranged from $93,075/year to $105,850/year; community and assisted living from $19,240/year to $51,600/year; and in-home care from $53,768/year to $54,912/year.[15] Genworth (2019) also calculated median costs for LTC services providers in Hawaii, costing between $144,175/year to $165,619/year for nursing home facility; $18,980/year to $60,000/year for community and assisted living; and $64,064/year to $68,640/year for in-home care.[15] In an interview with Health Care Association of Hawaii's (HAH) President and CEO, Hilton Rathael, the difference in cost for Hawaii's nursing homes can be attributed to the cost of land, materials, labor, utilities, food, and supplies.[16] These higher costs of care, while oftentimes assumed to be associated with quality of care, in Hawaii may be more related to the LTSS infrastructure and the high cost of living in the State. To address the rising costs of LTSS in the State, Maui County Office on Aging is adopting a more preventative approach such as exercise, self-management skills training, and services specifically designed for caregivers.[17] These strategies can diminish the need for LTSS (access), lower overall costs of LTC (cost -containment) and, at the very least, improve one's quality of life.

Cost-containment is a business practice of maintaining expense levels to prevent unnecessary spending or thoughtfully reducing expenses to improve profitability without long-term damage to the company.[18] Cost-containment has been part of public policy discussions in the delivery of health care, including LTC, in the United States. Cost-containment strategies address the issue of finite resources in LTC and include not only government and provider responsibility but consumer responsibility for the solutions. In a Congressional Research Service Report to Congress several cost-containment strategies were recommended including: (1) Creating more effective and efficient financing delivery

systems through home and community-based services; (2) Integrating the use of managed care in both hospital and long-term care environments; and (3) increasing state funding of LTC or private financing, such as long-term care insurance.[18] The report also noted cutting reimbursement rates or controlling nursing home supply as possible alternatives for cost containment.[18] These cost-containment strategies could negatively affect access to services and quality of care because LTSS providers depend on reimbursements/payments to provide LTSS to their consumers. The repeal of the Boren Amendment, designed to address Medicaid nursing home rates and quality and safety in nursing homes, gave states greater freedom to impose rate cuts in nursing homes however, based on the report, few states have chosen to take advantage of the option.[14, 20] Spending for LTSS is expected to rise for community-based services, such as home health care, over institutional settings, such as nursing facilities.[21] Overall, this increase in spending should positively affect cost-containment strategies as the cost for community-based services are less than institutionally based services, thereby decreasing overall spending for LTSS.

Quality:

Quality, like beauty, is in the eyes of the beholder. Quality means different things to different people and different things in different situations. Avedis Donabedian's (1966), model for measuring quality included three generally accepted measurement types: (1) Structures of care (organizational make-up); (2) Processes of care (care delivery) and (3) Outcomes of care (results).[22] How structures, processes, and outcomes ensure quality of care depends on the perspectives of stakeholders. Different stakeholders such as providers, consumers, and government, will have different perspectives on quality and different circumstances will oftentimes change one's perspective. Like the factors in the Iron Triangle, reaching equilibrium to ensure quality outcomes may mean compromising structures, processes, or outcomes.

Rich Kortum, Director of Strategic Partnerships for NRC Health, discussed strategies for building consumer trust and confidence through transparency in long-term care. In his article, Kortum (2017) suggests, a consumer's lack of real knowledge about the long-term care environment leads them to rely on stereotypes, which are oftentimes negative, when making decisions about LTC service providers and the care provided. However, among those who have seen and experienced long-term care for themselves or their family members, a majority have said they would recommend the services because of the positive experiences they have had.[23] The LTC environment has suffered from

negative perceptions of care quality for many years and a focus on honesty, authenticity, and transparency about the work provided, who provides it, and a realization that the primary focus in LTC is the consumer, can improve the reputation of the LTC environment as caring and committed to the population they are obligated to protect.[16]

In 2020, Hawaii ranked 7th overall on the LTSS State Scorecard provided by AARP Foundation, the Commonwealth Fund, and the Scan Foundation.[11] This ranking reflected no change from the previous report in 2017 however, Hawaii did show substantial improvement in two affordability and access indicators, two Choice of Setting and Provider indicators, and one in Support for Family Caregivers. While the 2020 data was analyzed in 2019, prior to the COVID-19 pandemic, the five dimensions – affordability and access, choice of setting and provider, quality of life and quality of care, support for family caregivers, effective transitions - and 26 indicators continues to be relevant. The comparisons made across multiple dimensions and indicators reflected the interconnectedness each had on the overall LTSS system.[11] While no direct correlation could be made regarding affordability, access, and quality from these rankings, the inclusion of these factors in the overall rankings suggests an interrelationship in LTC.

CMS' Care Compare provides an easy to navigate and understand informational site providing health care stakeholders with information about LTSS within a geographical location. The site provides information that can be used to make health care decisions and improvements in LTC, looking at cost, quality of care (i.e., staffing and health inspections), and access (i.e., location, number of beds, and participation in Medicare/Medicaid).[24] Care Compare also provides an overall 5-star rating and individual five-star ratings based on the LTSS' performance. As with the LTSS scorecard, no direct correlation can be made between cost, quality, and access, and overall ratings on the Care Compare website however, details about the measurement indicators, such as readmission rates or pressure ulcers/pressure injuries, can provide stakeholders with information on how facilities can/are meeting patients' needs, a quality priority.

Konetzka and Perraillon (2016) looked at trust and the use of the Nursing Home Compare website and found some consumers were not aware of the website, some weren't trusting of the data on the website, and some, who used the Nursing Home Compare website, found it limiting in the information provided, missing data on specialized services, proximity to family and service providers, and availability of beds. Researchers suggested adding availability of activities, information about

costs, and consumer satisfaction to the information provided on the website.[25] While trust and truth in data was often a concern with information found on the internet, researchers did find that respondents who understood the Nursing Home Compare website was associated with Medicare, and not individual nursing homes, were more trusting of the information provided.[25]

Outcomes are the ultimate measure of quality of care and service. Outcomes are difficult to measure for multiple reasons including: the complexities of patient follow-up after treatment and recovery; health status after treatment potentially not being a direct result of care or service provided; and patient-related factors such as age, compliance, comorbidities, severity of illness, and financial resources, affecting outcomes. Additionally, difficulty drawing conclusions of performance among different health care providers; conflicting standards among professional groups; and standards being considered baseline or the lowest acceptable limits for quality can affect quality. Defining who the customer is and his/her definition of quality, which is always subjective, can affect structure, process, and outcomes. For the LTC consumer, minimizing impairments and maximizing quality of life may be the measures needed to ensuring quality of care.[26]

Access:

As LTSS community-based services grow in numbers, we expect to see access to services change. With consumers wanting to age-in-place and programs to compensate or support informal caregivers, spending (cost) for institutional care should decrease and spending (cost) for community-based services increase. This increase will be lower overall because the cost to care for someone in the community is, oftentimes, less than in an institution. Given a choice of where the consumer would prefer to receive LTSS, the majority would choose to get services at home. While some consumer's physical, mental, or social wellbeing will require them to live in a nursing home or assisted living facility, the option of living at home and having services either brought to the home, such as through home health or personal companion services, or leaving the home for short periods of time, for adult day care, is preferred.

In Hawaii, a family-oriented culture, multi-generational homes, and long-term care costs are reasons many people requiring LTSS are not in institutional settings or receiving care from paid caregivers. While still receiving needed care, these services are being provided by uncompensated, family caregivers. Some family caregivers are juggling full-time or part-time jobs with caregiving, while others quit their jobs to provide care full-time, often affecting the economic stability and

psychosocial well-being of the caregiver. This instability can lead to depression and health issues that, not only affect the caregiver, but also affect the quality-of-care provided to their loved ones.[27]

AARP Hawaii estimates Hawaii has approximately 157,000 unpaid family caregivers, providing 131 million hours of care a year, valued at $2.1 billion dollars.[28] Providing care within the family unit can lower LTC costs, eliminate or lessen the need for LTSS, and improve quality of care/quality of life however, the financial burdens on these caregivers and their families may be severely affected. A report by the John A. Hartford Foundation (2019) found Hawaii was one of the nation's leaders in implementing and supporting family caregiver programs.[29] Programs such as Hawaii's Family Caregiver Support Program (FCSP) and the Kupuna Caregivers Program assist family caregivers in accessing LTSS assistance and resources such as access assistance, counseling, information services, supplemental services, and respite care. The Kupuna Caregivers Act, passed in 2016 and funded by the State, offers money to caregivers who also work full-time and meet the program's criteria. These caregiver support programs and laws address needs of caregivers that can improve the quality of care provided to family members while keeping health care costs manageable and providing access to needed LTSS.

A 1989 HHS report prepared by Jackson and Burwell studied the use of functional criteria in allocating long-term care benefits. The report looked at existing programs, i.e., skill nursing facility (SNF), home health, respite care, home and community-based services, and how allocating benefits based on ADLs, would affect access to care. Findings, based on this research found: (1), functional abilities, clinical judgement, and physician authorization were used in determining benefits levels; (2) LTC services were not only based on physical capabilities but cognitive performance; (3) placing a level of need based on ADLs is controversial and may be discriminatory; and (4) consideration of alternative criteria for allocating benefits is essential. The report also revealed that measures of need and allocation of benefits would always be affected by availability of resources and eligibility criteria and financing mechanisms should be addressed together, as one closely affects the other.[30] Based on this study, access is closely related to cost and financing and a fluctuation in financial resources can affect access to LTC services.[30] A 2011 phenomenological study conducted with administrators of Medicare and Medicaid nursing facilities in Hawaii (2011) concluded accommodation of patient's needs was priority when making admission decisions.[31] Accessibility and availability of equipment and supplies, adequate staffing ratios and staff training, and reimbursements/payments that covered

the cost of care were barriers to access. While the researcher looked particularly at access to nursing facilities for obese patients, the importance of ensuring patients' needs is met when providing access to LTSS affects all consumers and the cost and quality of care received.

Implications and Strategies:

Long-term care is the most heavily regulated industry, second only to the nuclear energy industry, requiring LTSS providers to follow thousands of laws, statutes, policies, and procedures that protect the consumer and the industry but also affect cost, quality, and access. While following these regulations can be costly for providers, taking steps to mitigate loss of revenue by promoting well-being and preventing waste and abuse of limited resources must remain priority. A focus on quality of care, providing access to long-term care services, and addressing cost, has yielded the following implications and strategies for LTSS stakeholders, including those who call Hawaii home.

Quality:

1. Recognize the importance of culture, values, and diversity when designing and delivering quality LTSS. (Hawaii)
2. Require cultural competence training to LTSS providers and family caregivers as this knowledge and skill improves quality of care and health outcomes. (Hawaii)
3. Increase the value of LTSS by meeting the expectations of consumers and eliminating quality problems proactively (before the problems arise).
4. Reduce costs by eliminating quality problems and either improving or maintaining quality expectations.
5. Find opportunities to expand consumer expectations and cost-efficient, cost-effective ways to meeting those expectations. Ask consumers what is important to them in the LTSS environment and evaluate how the organization meets those expectations.
6. Use quality indicators as benchmarks to baseline performance measures. Execute performance improvement practices that elevate the organization above baseline.
7. Implement quality processes that evaluate the organization, how care is delivered, and the outcomes of care. Use best-practices to design policies and procedures to address findings.

Access:

1. Create laws and government programs that provide training and compensate unpaid (family) caregivers for the care and services provided thereby easing financial pressures, increasing the number of care providers available, and allowing LTC consumers to stay at home/age-in-place. (Hawaii)

2. Offer LTSS alternatives to consumers based on physical, mental, and psychosocial needs, remembering that choice should be based on consumer preference, culture, and values. (Hawaii)
3. Assess the need for LTSS and generate possible strategies to meeting those needs. Include health care and LTSS stakeholders (i.e., consumers, providers, payers, and government) in the process. Be prepared to streamline government processes to ensure needed services are provided to the LTC consumer in a timely manner.
4. Assist consumers in finding resources created to increase transparency and awareness of available LTSS providers and the care provided. Encourage consumers to never rely solely on one form of evaluation but to contact or visit providers to ask questions and clarify any uncertainties.
5. Provide incentives for LTSS providers to admit certain groups of consumers into their programs. This might include subsidies, waivers, or rebates to off-set costs. These incentives can come from payers, government, or public/private partnerships.
6. Increase awareness and transparency of available LTSS providers in communities including, admission criteria, services provided, cost of care, performance standards, and customer reviews. Ensure the information provided is up-to-date, available, and accessible to consumers.

Cost:

1. Expand Federal and State government programs to incentivize LTC consumers to use non-institutional/community based LTSS or compensate non-traditional care providers to encourage alternative cost-effective forms of care. (Hawaii)
2. Provide affordable programs and/or incentives for consumers to plan for their individual LTC needs before the need arises. Address the issue of not needing the LTSS in the future. (Hawaii)
3. Create programs that promote good health thereby delaying the onset of needing LTC services and lessening LTC spending overall. (Hawaii)
4. Assess the true cost of providing LTC services, based on laws, regulations, quality measures, and state-specific cost of living standards. Include cost-of-care for specific groups of consumers (i.e., physical, and mental impairments, skilled services, assistance with ADLs and IADLs, etc.). Look for opportunities to prevent unnecessary spending and reducing expenses.
5. As regulations change or are modified, assist LTC service providers in meeting regulations by providing financial assistance, should the need arise. By following regulations, thereby improving the delivery of services, organizations can contain costs by preventing unbudgeted spending arising from poor quality of care practices.
6. Evaluate current Medicare and Medicaid LTC managed care plans and networks and strategize how best to meet consumer needs and demands, while reducing costs to providers and payers. This might include delivering services outside of the traditional institutional LTC settings.

Conclusion:

The Iron Triangle of Health Care is a framework focused on three factors with identical priorities, upon which health care decisions should be made. The LTSS environment also spotlights these priorities: ensuring quality of care/quality of life; equal access to needed services; and controlling cost, while accepting the fact that reimbursement (cost) is the ultimate driver. While Dr. Kissick and others agree regarding the importance of these three factors, they also agree not all three can be given equal priority and one or two factors will prevail over the other(s). The significance of this realization is that these three factors are dependent and not independent of each other. Using Hawaii as our example, we described the importance of each factor in the long-term care (LTC) environment and its influence on outcomes. We found that LTSS success, including in Hawaii, cannot focus primarily on quality or access or cost. Success must take all three factors into consideration to meet the needs of LTSS and consumers. Incorporating the strategies herein, based on one's relationship to the LTSS environment, may provide opportunities for the betterment of the environment and the consumers served.

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