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# Integrative Care Models: Impact on an Aging Society Chelsea Rink

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## **Integrative Care Models: Impact on an Aging Society**

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### **Abstract**

*This paper explores the need for healthcare reform to support the aging population in the United States. In the literature review, the author identifies the unique needs of the aging population and explores the application of integrated care models in achieving the healthcare Triple Aim. Two alternative integrated care models for older adults in the United States are examined: the Program of All-Inclusive Care for the Elderly (PACE) and Tandem 365. Berwick, Nolan, and Whittington's (2008) recommendations of key framework for integrated care models to achieve the Triple Aim are introduced and utilized to evaluate and compare PACE and Tandem 365. Recommendations are discussed supporting the replication and development of integrated care models, and the need for further research of this topic.*

*Keywords: integrated care models, population health, aging, triple aim*

### **Integrative Care Models: Impact on an Aging Society**

In the United States, healthcare spending continues to rise and be a topic of concern for policy makers, healthcare professionals, and consumers. In 2014, the United States spent \$9,024 per capita on healthcare, which is more than twice the average spending of other developed countries (Peter G Peterson Foundation, 2016). Coupled with this increase in healthcare expenditures the US is now faced with the aging of the Baby Boomer generation. “Between 2010 and 2050, the United States population ages 65 and older will nearly double, the population ages 80 and older will nearly triple, and the number of people in their 90s and 100s will quadruple” (Neuman, Hubanski, Huang, Damico, 2015, p1). This combination of an aging population and increasing healthcare expenditures has very important implications for Medicare spending.

According to a Kaiser Family Foundation report, “people ages 80 and older disproportionately accounted for 24% of the Medicare

population and 33% of Medicare spending in 2011” (Neuman et al., 2015, p2). Contributing to this disproportionate spending is the reality that while our population is increasing in longevity, people are more likely to live with multiple chronic conditions and functional limitations which put this population at a greater risk of inpatient hospitalizations and post-acute care services such as skilled nursing facilities and home health care. Neuman et al (2015) also found that, “traditional Medicare per capita spending increased with age in 2011 and peaked at age 96 before declining” (p.2). Although one should expect some increase in healthcare spending with age, the question needs to be asked – are Medicare beneficiaries getting the appropriate services needed as they age? Are the services being delivered efficiently and effectively? Are the services adequately meeting the needs of the aging population?

The answers to those questions are in part reflected in the most tracked healthcare quality measure in the US today – hospital readmissions. CMS found in 2013 that approximately 17.3% of Medicare patients who admitted to the hospital were readmitted within 30 days of discharge. According to data from the Center for Health Information and Analysis, the estimated cost of hospital readmissions for Medicare is \$26 billion annually, with \$17 billion being spent on what are considered preventable readmissions (Reardon, 2015).

Based on this data, we are not adequately meeting the needs of our rapidly aging population through our traditional healthcare system. Our current healthcare system neglects the unique needs of older adults and traditionally focuses on fee-for-service, disease-oriented approaches. In the current environment, older adults with multiple comorbidities are experiencing fragmentation of care given by multiple healthcare professionals, poor care coordination, and a lack of patient involvement. These dysfunctions result in adverse drug events, medication errors, misunderstanding and lack of participation in treatments, and costly hospital readmissions (Spoorenberg, 2015, p2). The challenge is to find ways to improve the management and coordination of care, and to deliver innovative healthcare to the aging population that is tailored to meet their specialized needs, which is simultaneously more efficient and effective.

The standard measure of success for health care programs as adopted by CMS is the “Triple Aim.” Achieving the triple aim requires the balanced pursuit of three interdependent areas: improving patient experience, population health, and reducing cost of care (Berwick, Nolan, Whittington, 2008). The purpose of this paper is to identify the needs

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of the aging population in the United States, explore the application of integrated care models, and assess the impact of two integrated care models designed specifically for older adults in the United States and focused on achieving the healthcare Triple Aim.

#### **Anticipating Needs of the Aging Population**

There is great opportunity to reduce the amount of current healthcare spending for adults experiencing aging by truly understanding their unique needs. “In 2014, 22 percent of the population age 65 and over reported having a disability as defined by limitations in vision, hearing, mobility, communication, cognition, and self-care” (Federal Interagency Forum on Aging-Related Statistics, 2016). The majority of older adults also suffer from at least two chronic diseases. In addition to physical and cognitive ailments, the mental and social health and wellbeing of older adults is equally as important. According to an article in *Geriatric Nursing*, “the social environment is now considered to be as important as genetic or biological factors on the experience of aging” (Brownie, 2011, p. 318). Social isolation and loneliness in older adults can lead to increased risk for mortality, along with many other negative impacts of physical and mental health.

The vast majority of adults also desire to “age in place.” Aging in place is the idea of a person living in the residence of their choice, for as long as they are able, as they age. This includes being able to have any services they might need over time as their needs change. However, there are many barriers to older adults successfully aging in place. Those barriers include low income, affordable housing, isolation, access to care, barrier free housing, transportation, and health conditions requiring reliance on others for support. Nuclear family units have also changed over the years, and instead of older adults living with family, over one third of adults age 75 and older are living alone. Married couples with children under age 18 living in dual-income households have also significantly increased from 25%-60% over the last 50 years (Pew Research Center, 2015). Due to their children needing to sustain two household incomes, older adults have been negatively impacted as their children are unable to help care for them.

According to Healthy People 2020 (2016), studies have found that increased levels of social support are associated with a lower risk for physical disease, mental illness, and death. It was also found that the availability of community-based resources and transportation options

for older adults positively affects health status and supports aging in place. Aging in place poses many challenges to our current health care delivery and community support systems. It is imperative that healthcare, nonprofit, and government professionals understand the unique needs of the aging population, and collaborate and adapt to meet those needs.

### **The Case for Integrated Care Models**

To achieve the elements of the Triple Aim and assist older adults to age in place, systems such as integrated care models must be designed which recognize, “a population as the unit of concern, externally supplied policy constraints (such as total budget limits), and existence of an ‘integrator’ able to focus and coordinate services to help the population on all three dimensions at once” (Berwick et al., 2008, p. 762). Integrated care models achieve that vision by bridging gaps in services and solving the problem of fragmented care through conscientious and coordinated care between a network of provider partnerships, while considering individual patient needs and preferences.

**Framework.** Typically a health system or insurer takes the lead as “integrator” in managing and coordinating care for patients across the continuum. An effective integrator is a single organization, not just a market dynamic, which links healthcare, public, and social service organizations with overlapping missions across the spectrum of delivery. The integrator organization also needs to be able to recognize and respond to individual patient care needs and preferences, to the health needs of the larger population, and to the total costs of care.

Berwick et al. (2008) break down the role of the integrator, in the pursuit of the triple aim, into five key functions. The first function is to involve individuals and families to make sure they are informed about the determinants of the individual’s health, and to involve them in creating a plan of care to address their individual needs. Second, the integrator needs to redesign primary care services and structures to strengthen primary care and outpatient services for the population. The third function of the integrator is to be responsible for population health management by anticipating the needs and shaping the delivery of care and monitoring for a specific group. Fourth, a unique financial management system will also need to be directed by the integrator to overcome the current fee-for-service and episodic reimbursement systems. Finally, the integrator needs to achieve system integration at the macro level by updating standards of care, making evidence based

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interventions available, and making medical records accessible.

**The first integrated care model.** One of the first commonly used integrated care models was the Chronic Care Model (CCM) introduced by the World Health Organization (WHO) in 1998. The CCM aimed to improve quality of care by providing proactive, patient-centered and integrated care. “It links community services to the healthcare system and describes four interdependent key elements: self-management support, delivery system design, decision support, and clinical information systems.” (Spoorenberg, 2015, p. 2). Self-management support included preparing the patient to manage their care needs through education and training initiatives. Delivery system design was the revision of professional roles, introduction of a case manager and home visits into the system, and the creation of multidisciplinary teams. Decision support encompassed implementing evidence-based best practices. Finally, clinical information systems included shared clinical records, and is reflected today through the use of electronic medical records.

**Benefits.** The WHO Regional Office for Europe (2015) recently prepared a study of the potential benefits of integrated care models, which included benefits to the patients, professionals and healthcare system at large. Integrated care directly contributed to the prevention of adverse outcomes such as hospital readmissions, medication errors, and redundant diagnostic testing. It also led to a reduction in hospital length of stay and lowered the number of long-term care admissions.

Aligned with our knowledge of the importance of social wellbeing to the older adult, Spoorenberg et al. (2015) assessed the qualitative benefits to older adults participating in “Embrace,” an integrated care model for community-dwelling older adults in Europe. The study found that in their experience with aging, many older adults feared increased dependency, decreased social interactions, and a loss of control over their lives. Their experience with Embrace was compared to their experience with aging, and it was found that the older adults had formed relationships with their case managers and felt supported, monitored, informed, encouraged, safe, and secure.

### **Application of Integrated Care Models for Older Adults in the United States**

Since the development of the CCM, integrated care models have evolved and have been developed as a tool for the health of many different populations. Two cases in which integrated care models

have been developed for the aging population in the United States are reviewed.

**Model 1: Program For All-Inclusive Care For The Elderly (PACE).** One of the long-standing examples of an integrated care model serving the aging population in the United States is the Program for All-Inclusive Care for the Elderly (PACE). PACE was developed in the 1970s through a one-year innovation grant from the Robert Wood Johnson Foundation at On Lok Senior Health Services in San Francisco. The project was developed to serve the frailest older adults in the community who were at high risk of needing nursing home placement, with the goal being to provide community-based services to keep them out of institutions. After its success, the Balanced Budget Act of 1997 established PACE as a permanent Medicare program. In 2006, CMS awarded \$7.5 million in grant funds to organizations to develop PACE in rural service areas. Today there are over 100 programs in more than 30 states. (CMS, 2011).

**Target Population.** PACE was created to serve the most vulnerable population of frail older adults with debilitating chronic medical conditions. In order to be eligible to participate in PACE, an individual must be 55 years or older, live in the service area of a PACE organization, meet nursing home level of care criteria, be able to safely live in the community with PACE assistance, and have either Medicare and Medicaid or both. Based on 2015 Michigan PACE enrollment data, 59.88% of participants were age 75+, 25.97% were age 65-74, and 14.15% were age 55-64. The lower income and dual eligible population is also primarily served by PACE. In Michigan on average 98.59% of participants are eligible for Medicaid and 94.66% are eligible for both Medicare and Medicaid (National PACE Association, 2016).

**Framework.** PACE provides a range of integrated preventative, acute care, and long-term care services to manage the complex medical and social needs of frail older adults. Once a person is eligible to enroll, they will forego all prior sources of care and receive all of their services through the PACE organization. PACE organizations are primarily nonprofit organizations, which are funded in many diverse ways, such as local provider and health system sponsorships or ownership with equity in the program. PACE organizations are the facilitating hubs of the PACE program that receive all of the reimbursement for services, operate the PACE day center, contract with other service providers, and

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adhere to state and federal regulations. PACE organizations will contract with outside providers when needed but the network is very structurally limited.

Once a new enrollee is signed on, a comprehensive care plan to meet the individual's specific needs across care settings will be created by an interdisciplinary team (IDT). The plan of care is updated and maintained by the IDT on a regular basis and as needed. PACE will provide all of the services its enrollees need in the home, community, and the PACE day center. The services offered include adult day care, primary care including doctor and nursing services, dental, emergency services, home care, hospital care, diagnostics, meals, nursing home care, nutritional counseling, occupational therapy, physical therapy, prescription drugs, preventative care, social services, social work counseling, and transportation.

PACE services are financed through combined Medicare and Medicaid prospective capitation premium payments. The PACE organization will receive a monthly capitated payment for each enrollee (or two monthly payments for dual eligible enrollees), and will pool the funds together to pay for the healthcare expenses of all of the enrollees. This model allows PACE to deliver all services needed, rather than just the services that are reimbursable through traditional Medicare and Medicaid fee for service models. The PACE organizations assume full financial risk for the healthcare services of their enrollees, therefore there are no deductibles, copayments, coinsurance, or other cost sharing to the enrollee (CMS, 2011).

**Intended outcomes.** The intended outcomes of PACE as defined by CMS (2011) are to provide pre-paid, comprehensive health care services that are designed to enhance the quality of life and autonomy of frail older adults, maximize dignity and respect of older adults, enable frail older adults to live in their homes and in the community as long as possible, and preserve and support the older adult's family unit.

As the program was developed in response to rising health care costs and institutionalization of frail older adults, additional intended outcomes are to reduce health care costs associated with this population. One of the ways in which PACE aims to reduce cost are through lowering costly hospitalizations and ER visits by providing increased support services to its participants through the day center and additional social supports as detailed above.

Many PACE organizations are also offered financial incentives to partner with local EMS organizations to assist in providing 24/7 on



call emergency care to participants by collaborating with PACE on call professionals to determine the best course of action for the participant in response to the emergency call. Some PACE organizations are also developing new ways to further their partnerships with local EMS services through contracting with EMS to treat PACE participants in the home if an ER transfer is not necessary. According to PACE Association of Michigan Director, Rod Auton (personal communication, June 28, 2017), PACE organizations in Michigan are also interested in creating a program to utilize EMS partnerships to help monitor participants in between emergencies by providing services such as check-in visits, taking vitals, and assuring patient safety.

Through its reimbursement framework, PACE is also able to allocate funds as its health professionals see fit to tailor services more specifically to individual participant needs, regardless of traditional Medicare/Medicaid funding guidelines. For example, if a participant needs routine physical therapy services in order to maintain their health due to chronic conditions, PACE could provide this regardless of traditional Medicare therapy caps and criteria for billing. This act alone could help reduce re-hospitalizations due to falls for a participant with a movement disorder, or could help reduce re-hospitalizations due to shortness of breath for a participant with Chronic Obstructive Pulmonary Disease.

Another large focus area of cost containment for the PACE organizations in Michigan is prescription medications. On average approximately \$700-\$800/month per participant is spent on prescription medications and treatments for this frail population. Simply by providing integrated care, providers are better able to discuss and reconcile medication and treatment orders to avoid duplications, adverse drug reactions, and attempt to maximize use of generic prescriptions (R. Auton, personal communication, June 28, 2017).

Finally, due to the high acuity of the target population served, PACE also intends to reduce the length of stay or time spent in the inpatient setting in hospitals and skilled nursing facilities. Due to the accessibility of the day center, increased outpatient supports, and care coordination efforts, PACE participants should only be utilizing inpatient care in cases that are out of the ordinary. However if the need for hospitalization or inpatient skilled nursing does arise, length of stay should decrease due to the case management services PACE provides and the many barriers in discharge planning that PACE eliminates.

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**Model 2: Tandem 365.** Tandem 365 is an integrated care model developed among five local health care organizations aimed at improving the quality of life of seniors in the Grand Rapids, Michigan area. The collaborating partners are all equal owners and include four Continuing Care Retirement Communities (CCRCs): Clark, Porter Hills, Holland Home, and Sunset. The fifth partner/owner is Life EMS ambulance and emergency services. The program was piloted in 2014 in collaboration with Priority Health insurance. The mission of Tandem 365 is to develop “a community collaboration empowering others to achieve better health, reduce costs, and improve quality. The vision is to become the new health architecture for older adults by empowering the self-management of preventative health, helping those who have few options for better health, collaborating resources to reduce the costs of care, and organizing the complexities of health care for each individual” (Tandem 365).

The program essentially helps older adults navigate the complex health care system, while enabling them to remain independent in their homes. Individuals age 55 and older with a Priority Health insurance plan may be eligible to participate in Tandem 365. Participants must also qualify based on additional health risk factors identified by Priority Health through utilization reviews. Therefore, participants are selected based on increased healthcare utilization and spending higher than the average cost per-member per-month (PMPM). Participants also typically have multiple chronic medical conditions contributing to the higher cost and utilization of services. Once enrolled, participants are assigned a nurse navigator and a social worker to participate with their primary care physician in identifying and addressing needs, developing a life plan, and coordinating resources.

***Target population.*** Individuals 55 or older with a Priority Health insurance plan are eligible to participate in Tandem 365, however participants must be selected by Priority Health to enroll in the program. Priority Health has developed an innovative care management program in which its care managers work to coordinate transitions of care for members. Priority Health care managers work directly with hospitals and skilled nursing facilities to identify high acuity patients who will need ongoing supports or who are at high risk for rehospitalization once they are ready to be discharged to home. After this need is identified, claims data is used to analyze the individuals’ burden of disease and utilization of services. Patients falling into the high-risk categories based on this data are invited and encouraged to enroll in Tandem 365. During the 2014 pilot program, Priority Health specifically targeted members for whom

health care expenses were over \$25,000 per year. Currently to fund its care coordination services, Tandem 365 receives a per-member-per-month payment of \$625 from Priority Health (Plante Moran, 2016).

**Framework.** When an individual is enrolled in Tandem 365, they are assigned a nurse navigator and a social worker to help collaborate with the individual and their existing primary care physician. This group will then work together to assess the participant's medical, behavioral, and social needs, and ultimately develop a Life Plan with goals through which Tandem 365 can help support the individual. The nurse navigator or social worker will attend future health care appointments with the participant to ensure collaboration with health care providers and strong communication between transitions of care. The IDT team including the nurse navigator, social worker, physician, therapists, home health aides, and relevant other providers will also update the plan of care on a regular basis.

The Tandem 365 team provides direct care to participants in their home, and also coordinates referrals and additional support services from the Tandem partners and volunteer organizations, all of which are crucial to their success. Coordinated support services that are available to participants include chore services, telemedicine, medication management, meals, mental health services, nursing, spiritual care, various therapy services, transportation, volunteer visits, wellness coaching, and more. Each participant also works with the nurse navigator or social worker to prepare advanced directives and advanced care-planning documents.

**Intended Outcomes.** The intended outcomes of Tandem 365 are all stated directly in the mission statement, to achieve better health, reduce cost, and increase quality. These outcomes are achieved through collaboration with providers by providing patient centered care, and by providing social supports for individuals to overcome barriers to health and self-determination.

One of Tandem 365's initiatives aimed at achieving cost containment and increasing quality of life is its strategic partnership with Life EMS. Life EMS is an integral part of the Tandem 365 rapid response team and helps maintain 24/7 on-call services for program participants. Tandem 365 and Life EMS obtained approval from the State of Michigan for EMTs to coordinate in-home care initiatives with Priority Health's medical directors. This has allowed the Life EMTs to respond to emergency calls and provide limited health care services in the home to patients without life threatening conditions, who otherwise would have been transported to an emergency room for costly treatment.

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Tandem 365s partnership with the CCRCs has also helped support its cost containment initiative by creating an ER diversion program. This diversion program allows for participants presenting to the ER who do not meet hospital inpatient criteria, yet are unsafe to return home, to directly be admitted to the CCRC for sub-acute rehab services or respite stays, rather than incurring unnecessary outpatient costs or unsafe ER discharges back home.

Finally, the care navigators in addition to connecting participants to the services they need to be successful also ensure that they are receiving the appropriate level of care in the post-acute setting. Cost containment is driven by timely transitions in the post-acute setting and through the care navigator's assistance in optimizing length of stay for costly inpatient hospital and skilled nursing stays.

### **Findings**

Both PACE and Tandem 365 are integrated care models designed specifically for frail or high-risk older adults, with intentions to decrease unnecessary health care spending and improve the health and wellbeing of older adults. Both programs successfully implement the key functions identified of integrator organizations (see Figure 1). The programs are similar in that they focus on creating individualized care plans for their participants, and involve family members in decision making when possible. PACE and Tandem 365 also take an interdisciplinary approach to providing and directing patient care. In addition, they provide support services to overcome social barriers to health such as transportation, meals, and counseling. Both programs are also primarily driven by cost containment initiatives.

A key differentiator in the programs is that enrollees in PACE have 100% of their care completely managed by PACE as well as all Medicare/Medicaid benefits. The advantage is that enrollees should never have to worry about paying out of pocket costs such as copays and deductibles, and they should never experience financial barriers in accessing healthcare services. The PACE organization can also use funds for services at the discretion of the health care professionals based on individualized participant needs, regardless of traditional Medicare/Medicaid fee for service guidelines. This gives PACE the opportunity to successfully manage participants with chronic conditions needing long-term supports, and to strike a balance creating positive outcomes in patient care, which should be reflected in overall cost savings. Although the funding guidelines for

traditional Medicare/Medicaid do not apply to PACE, it is important to note that CMS has set forth many specific regulations that PACE organizations must follow in order to retain their funding and provide services.

Figure 1: Key roles of the integrator organization among PACE and Tandem 365 framework. (Prepared by author)

Role	PACE	Tandem 365
<b>Involve Patient &amp; Family</b>	<ul style="list-style-type: none"> <li>Individual &amp; family involved in developing individualized care plan with IDT team</li> </ul>	<ul style="list-style-type: none"> <li>Individual &amp; family involved in developing individualized care plan with IDT team</li> </ul>
<b>Redesign Primary Care</b>	<ul style="list-style-type: none"> <li>PACE provides all outpatient services.</li> <li>Majority of services received at PACE day center.</li> </ul>	<ul style="list-style-type: none"> <li>Tandem 365 partners provide home-based support services.</li> <li>Navigators coordinate with existing PCP to direct outpatient care.</li> </ul>
<b>Population Health</b>	<ul style="list-style-type: none"> <li>24/7 on call</li> <li>Collaboration with EMS</li> <li>Offers social and health support services</li> </ul>	<ul style="list-style-type: none"> <li>24/7 on call</li> <li>Collaboration with EMS</li> <li>Offers social and health support services</li> </ul>
<b>Financial System</b>	<ul style="list-style-type: none"> <li>PACE pools all monthly payments from Medicare &amp; Medicaid</li> <li>Covers all care, no out of pocket costs to patients</li> <li>Assumes full financial risk</li> </ul>	<ul style="list-style-type: none"> <li>Receives \$625 per-member-per-month from Priority Health</li> <li>Team monitors monthly spending via financial scorecard</li> </ul>
<b>System Integration</b>		<ul style="list-style-type: none"> <li>Uses evidence-based practices</li> </ul>

PACE data for Care Resources, the Grand Rapids local PACE program

One of the limitations for the participants in PACE is that they must only utilize the PACE contractors to receive care. There are no “out of network” benefits with PACE if a participant wishes to see a practitioner or provider who is not contracted. However, this limitation to the participant can be a benefit to the PACE organization because it ensures that in working with providers and participants cost is transparent, fair contracted rates are established, and standard processes for collaboration already exist.

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In Tandem 365, the five core partners are primarily utilized to provide services, however enrollees can still exercise patient choice to see outside providers, and for services that Tandem 365 does not cover such as dental care. The overall concept of Tandem 365 as an ICM also differs from PACE in that Tandem 365 is being paid to provide a care coordination service and platform of collaboration versus being held responsible for all participant care and costs associated with health care. Priority Health, the insurer, and the patient, whenever co-pays and co-insurance apply, are assuming financial responsibility for care. Tandem 365 is not assuming financial risk on the same scale as PACE.

Another key differentiator between the programs is that Tandem 365 relies on a robust network of volunteers to provide custodial care in the home for older adults, and to provide spiritual and wellness visits. While some PACE organizations also use volunteers, the scale to which Tandem 365 relies on volunteers is much greater, and has had a major impact on lowering the cost of care while improving the health and wellbeing of participants.

### **Outcomes**

PACE has proven to be a successful leader in providing integrated care and achieving the triple aim through its measured outcomes (see Figure 2-next page). A 1998 study evaluating PACE estimated Medicare savings to be 38% in the first six months, and 16% between months seven and twelve. The savings resulted from increased use of outpatient services, less use of hospital services, less time in nursing homes, and more time in the community. In addition, more patients in the study reported a perceived better health, quality of life, satisfaction with care, and they perceived they were in a better functional state compared to the control group (Veras et al., 2013).

Ten years later, in 2008, PACE was still shown to be significant in impacting health care quality and outcomes, as evidenced in the 2008 research report to CMS. PACE participants enrolled from 2001-2003 were selected for the study, which found that hospitalizations from the prior year were decreased by 11%, and PACE participants were nearly 30% less likely to be hospitalized than the community based health services program participants to which the study compared them (Beauchamp et al., 2008).

Also impressive is the current national average of only 0.61 ER visits per member per year, and the Michigan average of 1.04 ER visits

per member per year. Cost savings and improved quality of life are also derived from the nearly 95.52% of PACE participants nationwide living at home or in the community, as opposed to permanent placement in an institutional setting. In Michigan, 97.33% of PACE participants live at home or in the community (National PACE Association, 2016).

Current surveys have also reflected high customer satisfaction, in that 94.39% of PACE participants nationwide would recommend the program to family or close friends in need of this kind of care (National PACE Association, 2016). A study to assess the experiences of dual eligible adults in PACE also found that participants valued the emotional and practical support gained through care coordination, valued knowing that their providers were communicating with one another, and family members were pleased with the providers involving them in their loved ones care (Reinhard, 2013).

Although less data is available for Tandem 365 as compared to PACE due to being founded only two years ago, Tandem 365 has also produced significant results in achieving their goals for greater health, reduced health care cost and increased quality of life. There were only 150 members in the Tandem 365 pilot from 2014-2015, but it was found that the average health care cost per member had decreased by 30.2%. In addition, overall healthcare utilization was reduced: ER visits decreased by 46.2%, specialty visits decreased by 22.8%, and outpatient visits decreased by 13.4%. Finally, Tandem 365 enrollees reported 98% customer satisfaction (Plante Moran, 2016).

### **Final Considerations**

It is evident that the rapidly aging population poses unique challenges to the traditional health care system in the United States. All aspects of physical, mental and social wellbeing, including the social environment, need to be taken into consideration when designing a healthcare system to support older adults. Integrated care models have demonstrated their ability to bridge the gap in traditional health care systems and produce positive health outcomes supporting the Triple Aim, by establishing a single integrator organization to coordinate providers and manage population health across the continuum of care.

PACE and Tandem 365 are both examples of successful integrated care models designed specifically for frail or high-risk older adults. However some limitations do exist in both programs. In both PACE

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and Tandem 365, there was no one truly integrated Electronic Medical Record across the spectrum of providers serving both programs. This is a key recommendation from Berwick in achieving system integration, and improving transitions of care.

Figure 2: Healthcare outcomes of PACE and Tandem 365 supporting the Triple Aim. (prepared by author)

Triple Aim	PACE	Tandem 365
<b>Patient Experience</b>	<ul style="list-style-type: none"> <li>•94% customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>•98% customer satisfaction</li> </ul>
<b>Population Health</b>	<ul style="list-style-type: none"> <li>•Patients perceived better health and quality of life</li> <li>•Increase in outpatient services</li> <li>•Increase in time spent in the community</li> </ul>	<ul style="list-style-type: none"> <li>•ER visits decreased by 46.2%</li> <li>•Specialty visits decreased by 22.8%</li> <li>•Outpatient visits decreased by 13.4%</li> </ul>
<b>Cost Reduction</b>	<ul style="list-style-type: none"> <li>•1998: Medicare savings of 38% in first 6 months, 16% saved in months 7-12</li> <li>•Reduction in hospitalizations, and nursing home stays</li> <li>•97% live at home/ community (MI)</li> </ul>	<ul style="list-style-type: none"> <li>•Average health care cost per member reduced by 32%</li> </ul>

Regarding Tandem 365, it is recommended that Tandem 365 better defines any other risk factors used to identify eligible patients aside from cost and utilization, to create a sharper focus on the specific population requiring such management. This defined focus would allow for other providers and insurers to determine how to best replicate or alter the Tandem 365 model to meet the needs of their specific populations.

In order to replicate the Tandem 365 model, a potential barrier may lie in location. In an urban setting like Grand Rapids, Michigan where Tandem 365 was founded, there are multiple post-acute care providers available. In a smaller rural market it may be more difficult to generate collaboration among competitors, decreasing patient choice, and there may be a decrease in the availability of volunteers, which is an integral



part of the program's success. However, many of the organizational concepts and framework of Tandem 365 can and should be applied to future integrated care models.

A limitation of this study also lies in the findings of the Tandem 365 pilot program. Further studies should be conducted, as the pilot Tandem 365 model only served 150 enrollees. Tandem 365 is growing in enrollees and is anticipated to have 537 participants by the end of 2016. Although the pilot study was small, Priority Health and Tandem 365 recently entered into a three-year contract agreement to continue the joint venture. In addition, Tandem 365 is also starting a pilot program with Blue Cross Blue Shield network of Michigan, which will target 100 eligible members (Plante Moran, 2016).

Overall, Tandem 365 provides a great example of how existing single organizations can partner together to create a successful integrated care model, cutting costs and increasing quality of life for older adults. Tandem 365 is likely to be replicated in other markets and other patient populations, as it is essentially acting as a "supplemental service" to bind and support older adults struggling in our fragmented health care system. It is important to note that a model such as Tandem 365 fills a crucial void in the Grand Rapids, Michigan market, for those patients who do not qualify for other current ICMs (financially and/or functionally) including PACE and the Michigan Medicaid Waiver program. Tandem 365 is one of the first of its kind to implement a successful ICM for patients outside of the Medicaid class for which more community resources are typically made available.

When it comes to serving the frailest nursing home eligible, Medicare and Medicaid eligible population of older adults, no better program exists than PACE. For more than 30 years, PACE has continued to expand and produce successful results as an ICM. PACE provides indisputable evidence that integrated care creates better outcomes for our highest costing population in the US. This is being recognized again as President Obama signed the PACE Innovation Act of 2015, to test the application of PACE-like models for additional populations, including populations under the age of 55 and those who do not qualify for a nursing home level of care (CMS, 2015).

In conclusion, innovation and collaboration are vital to the existence and success of integrated care models across the globe. In order to achieve population health, insurers and providers need to be willing to collaborate with one another, community support systems, and even with competitors. Insurers and providers, such as Priority Health and

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the Tandem 365 founders, must also dare to create new innovative ideas outside from our current healthcare system, and they must be willing to assume financial risk in order to achieve their vision and goals.

Finally, policymakers must recognize and encourage the efforts of insurers and providers in creating innovative integrated care models by offering financial incentives and tempering the regulatory environment. The reason PACE exists today is because it was created through an innovation grant from the Robert Wood Johnson Foundation. The CMS Innovation Center established in the Affordable Care Act offers grants to test innovative payment and healthcare service delivery models, and represented a significant shift in the culture of the US government and its view on healthcare. It is imperative that policymakers continue to fund pilots through the CMS Innovation Center, and the PACE Innovation Act of 2015. Equally as important will be the continued funding of Medicaid Block Grants to support these initiatives and population health.

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# About the Author

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Chelsea Rink is a 2016 graduate of Grand Valley State University's Master of Healthcare Administration program with an emphasis in Long Term Care Administration. She received her Bachelor of Arts Degree in Public, Nonprofit, and Healthcare Administration from Grand Valley State University in 2013. Chelsea earned her Nursing Home Administrator license in April 2017, and is the Assistant Administrator at Heartland Health Care Center-Grand Rapids, a skilled nursing facility providing long-term care and sub-acute rehabilitation. She has worked for Heartland for the past 3 years, and is committed to bringing her positive energy and creative thinking to the nursing home environment. Chelsea has also been a member of the Huntington's Disease Society of America Michigan Chapter Board since 2012, and it is her passion to create educational and family service programming, and engage in advocacy efforts to remove barriers to care for people affected by Huntington's disease. It is her long term goal to develop tailored long term care solutions for people affected by Huntington's disease. Chelsea enjoys living in Holland with her husband, Jon, and dog Maggie, and taking advantage of the beautiful town and Lake Michigan.

