

Texas Leadership Roundtable Series on Healthcare

Clinical Task Force Principles and Recommendations

Principles and Recommendations for Improving Health Outcomes & Lowering Healthcare Costs:

Principle: Move health care systems from volume to value by ensuring that efficiencies in the delivery of healthcare are driven by improvements in clinical and operational quality

Recommendations:

1. Develop a definitive plan to transition away from fee-for-service as a payment method in healthcare. Instead, move deliberately toward paying healthcare providers and practitioners for outcomes. This would include implementation of broad-based and provider-led population health management with different delivery reimbursement models. These models include for example: risk adjusted capitation, bundled payments, and Accountable Care Organization (ACO) payment models that seek to purchase value. There should be monitoring to ensure that new payment models do not further disadvantage vulnerable populations.
2. Conduct impact and feasibility studies on different approaches to financing healthcare coverage, such as federal legislation and Medicaid block grants.
3. Expand healthcare access by using the entire spectrum of healthcare practitioners at their highest training capacity. For example, using interprofessional teams of Physicians, Physician Assistants, Nurse Practitioners and other licensed/credentialed community health workers provides for improved access at the point of need, potentially diminishing the utilization of the Emergency Department for truly non-urgent, non-emergent conditions.
4. Utilize evidence-based methods to determine coverage for new/emerging technologies, services, and pharmaceuticals.
5. Historically, behavioral and physical health have been segmented into different delivery and funding mechanisms. In order to ensure timely, efficient, and effective care; improve health outcomes; and significantly lower healthcare costs, behavioral healthcare must be integrated into the medical delivery system.
6. Give priority to healthcare initiatives that have a higher number of touch points, so that the patient's condition can be accurately monitored, ultimately preventing unnecessary hospitalization.

The top 10 most expensive health conditions are listed in Table 1. In total these conditions account for approximately \$502 billion for approximately 18% of the U.S. annual gross domestic product (GDP). The top five most expensive healthcare conditions include heart conditions, trauma disorders, cancer, mental disorders, asthma and chronic obstructive pulmonary disorder (COPD).¹ Obesity is related to three of the conditions, with higher rates of coronary heart disease, several cancers (esophagus, breast, colon/rectum, kidney, pancreas, gallbladder), and asthma.² These health conditions do not occur in isolation, and 75 million people in the U.S. have two or more concurrent chronic diseases.³ In a population with multiple health conditions, a whole-person healthcare approach is needed rather than disease specific programming.

Table 1: Top 10 Most Expensive Conditions in U.S.									
	Health Condition					Health Condition			
1	Heart Conditions, \$76 Billion				6	High Blood Pressure, \$42 Billion			
2	Trauma Disorders (e.g. broken bones, injuries from car accident), \$72 Billion				7	Type 2 Diabetes, \$34 Billion			
3	Cancer, \$70 Billion				8	Osteoarthritis and other joint diseases, \$34 Billion			
4	Mental Disorders, Including Depression, \$56 Billion				9	Back Problems, \$32 Billion			
5	Asthma and Chronic Obstructive Pulmonary Disease, \$54 Billion				10	Normal Childbirth, \$32 Billion			

The lack of care coordination for individuals with multiple chronic conditions can result in poor health outcomes from conflicting provider advice, preventable hospitalizations, and duplicated health services.⁴ Sixty five percent of all healthcare spending is used for 25% of the U.S. population with multiple chronic conditions.⁵ Table 2 provides an illustration of the potential that access to primary care represents as it looks at the number of potentially preventable readmissions in Texas over the 2006 – 2011 period.⁶

Table 2: Adult Potentially Preventable Hospitalizations in Texas (2006-2011)									
Bacterial Pneumonia	Dehydration	Urinary Tract Infection	Angina w/o Procedures	CHF	Hypertension	Asthma	COPD	Diabetes ST	Diabetes LT
293,248	88,057	194,899	16,886	345,614	62,569	92,269	173,780	55,977	130,798

Table 2 identifies potentially preventable hospitalizations in Texas hospitals for 10 diagnoses over a six

year period. Texas data for this same time period indicates that approximately 33% of the total hospitalizations has a behavioral health comorbidity.⁷ This strongly suggests that service models that integrate both behavioral and medical healthcare not only improve the quality of care but also have the potential to substantially reduce the cost of healthcare.

Table 3: Change in National Health Spending (%) Over 10 Year Period

Program/Policy Options	Estimated Impact Range
Bundled Payment	-5.4% --- -.1%
Hospital Rate Regulation	-2% --- 0%
HIT	-1.5% --- .8%
Disease Management	-1.3% --- 1%
Medical Homes	-1.2% --- .4%
Retail Clinics	-.6% --- 0%
NP-PA Scope of Practice	-.5% --- -.3%
Benefit Design	-.3% --- .2%

Participation (FFP) to 90% of the cost for enhanced medical home services.⁹ The National Council for Quality Assurance (NCQA) has developed three levels of certification for medical homes, (i.e., person centered medical homes) to define the quality of care provided by these integrated entities. Person centered medical homes, building upon the recognition of the significant impact behavioral health plays in preventable hospitalizations, integrates behavioral health with the medical component of care, essentially treating the whole person. A study by the actuarial firm Milliman found that between \$26 billion and \$48 billion in health care costs can be saved annually through such integrated person centered homes.¹⁰ In Texas, the 83rd Legislature's SB58 funded the implementation of two person centered medical home pilots that include a focus on both behavioral health and medical health.

Figure 1: Health Care Costs per Person (2012)

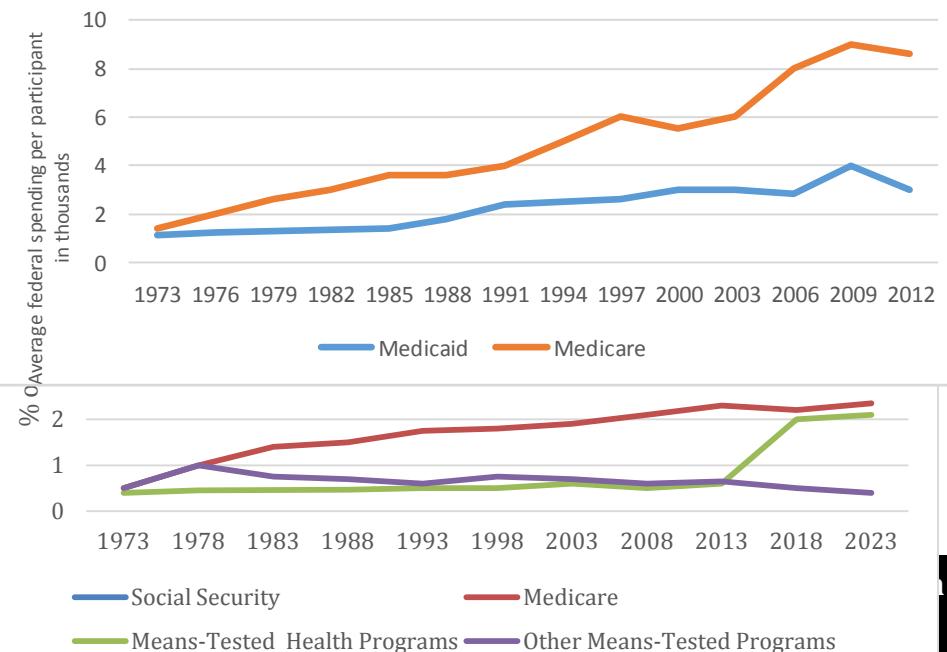


Table 3 identifies eight program models and policy options that could have a substantial impact in controlling healthcare spending.⁸ For example, implementing payment reform through bundled payments could reduce national health spending over a 10 year period by as much as 5.4% as little as .1%. The payment reform project, medical homes, has an estimated range from -1.2% to .4% on healthcare spending.

The Affordable Care Act (ACA) section 2703 addresses the need to implement medical homes for individuals with chronic conditions and as an incentive to do so increases the Medicaid Federal Financial

Implementing broad-based and practitioner-led population health management with different delivery reimbursement models that shift risk will both improve health outcomes and deliver more cost-effective care. The importance of a strategy that controls the growth in healthcare cost is illustrated in Figure 1.¹¹ This figure shows the growth in the federal share of Medicaid and Medicare costs per person from 1973 to 2012. In 1973 the average cost per program participant was approximately \$1,500, which has grown to over \$8,000 for Medicare enrollees and about \$3,000 for Medicaid recipients.

Figure 2 shows CBO projections for federal spending on

health care across four programs.¹² From the graph it can be seen that the CBO is projecting a substantial growth in Medicaid spending, (i.e., Means-Tested Health Programs) to above 2% of the Gross Domestic Product (GDP). Medicare is projected to grow to almost 5% of GDP by 2023.

Figure 3 illustrates how the CBO growth can be seen in the Texas Medicaid program. The Medicaid case load, measured in the average monthly recipient months, was estimated to be over 4 million in 2014.¹³ As enrollments in means-tested healthcare programs continue to increase it becomes even more critical to develop innovative payment reform models which provide quality services but also control spending. To address this need CMS created an Innovative Center which develops new payment and service delivery models that are congruent with the criteria for implementing Medicaid section 1115 waivers.

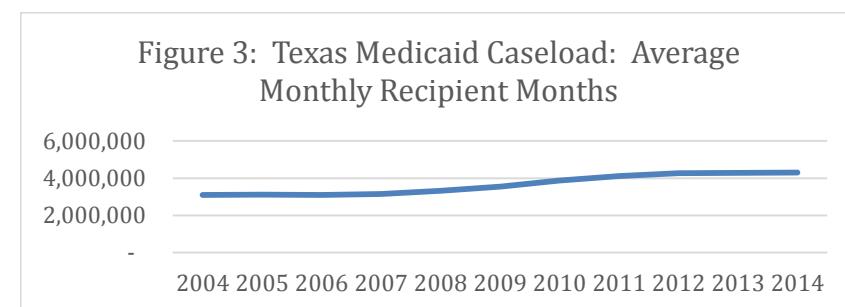
In addition to these health conditions, there are numerous health system factors that drive health care costs. On the demand side, the “insurance effect” has two observed results. Since insurance lowers the price paid at the point of service and there is a lack of transparent information on pricing and quality, consumers are not able to make informed healthcare decisions. In addition, being uninsured or underinsured delays patients from seeking treatment, resulting in higher costs for more advanced health conditions.¹⁴

Systemic issues are pervasive, such as giving payment incentives for volume rather than value. In addition, fragmented and uncoordinated delivery results in inefficient and duplicated care, and higher administrative costs.¹⁵

Therapeutic technology is cited as “one of the most significant contributors to the level and growth in health spending”.¹⁶ More expensive technology is used rather than less expensive for the same clinical problems. Also, the U.S. pays higher prices for technology compared to other nations, and the higher prices are maintained even after the innovation and initial diffusion stage has passed.¹⁷ The relative benefit of technology should be considered before they can be deployed into the marketplace.

Texas' current Medicaid priorities, as shared by Health and Human Services Commission leadership include the following:

- The Impact of Federal Legislation on State Medicaid
- Dual eligibles and implementing the Dual Eligibles Integrated Care Demonstration Project



- For individuals enrolled in both Medicare and Medicaid (dual eligibles), the demonstration project aims to “achieve savings and reduce costs through integrated and improved care management”.¹⁸
- Implementation of the Texas Health Care Transformation and Quality Improvement Program Medicaid 1115 Waiver
- Rebalancing Long Term Support and Services (LTSS) to support more community-based services
- Avoidable emergency department (ED) and in-patient (IP) services
- Supplemental Security Income (SSI) children

Strategies to alleviate rising healthcare costs include innovative best practice delivery and reimbursement models, as well as using the entire spectrum of healthcare practitioners at their highest training capacity.

- **Innovative Best Practice Delivery Models:** Team based care, Community-based teams, Primary health care homes, Pharmacy homes, Telemedicine/virtual care, Coordinated transitions, Open access urgent care, Leveraging community resources, 211 models, Clinical information connectivity, ER diversion

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Innovative Best Practice Reimbursement Models: Capitation for physicians, Paying for quality outcomes rather than processes/codes, Bundled payments/episodes of care, Shared savingsToday there are many new clinical and reimbursement models being tested in the market, and Texas has the potential to benefit from adapting and implementing these best practices to its unique healthcare environment. The following matrix provides a selection of case-study initiatives that have addressed cost drivers with proven costs savings, and could feasibly be replicated in Texas.

Case-Study Matrix: Opportunities to Improve Health Outcomes and Achieve Healthcare Costs Savings

Lone Star Circle of Care, Integrated OB-Led Model

Description:

- The OB Program focuses on providing comprehensive prenatal, labor and delivery, post-partum and gynecological care for uninsured and underinsured women in Central Texas.
- Regardless of insurance status, all women have access to a medical home model.

Outcomes:

- Reduced # of infants born with pre-term or low birth weight, # of NICU admissions.
- Care for infants that are born pre-term/low birth weight costs approximately \$11,636 more than babies born at normal birth weight.

Targeted Cost Driver:

- Pregnancy & Delivery, Newborn infants

Strategy:

- Coordinated Care
- Medical Home Model

ICU Daily Checklist and Goal Sheets for Improved focus on Quality and Improved Communication

Description:

- Intensive Care Units (ICU) care for patients with very complex needs, requiring several types of clinicians and multiple types of treatments at the same time. Keeping track of all aspects of care in this stressful and complicated environment is challenging.
- A team of physicians and other providers in Scott & White Memorial Hospital's Cardiothoracic ICU designed a daily checklist and goal sheet to remind them of the most important aspects of care and to communicate plans for each patient each day. A single form is used to facilitate communication between physicians and nurses and to communicate across hospital shifts.
- The form includes:
 - A list of actions that lead to the best outcomes for people in the ICU along with space for nurses on each shift to document that the action was completed or why it did not apply to the patient during that shift, and space to describe daily goals for care
 - The form is laid out so goals are described in the same way physicians and nurses document their notes in the medical records. This consistency of formatting, along with the short one-page layout makes the form a useful tool for communicating the most important aspects of care even when the whole team cannot be in the same room at the same time.

Outcomes:

- The new form was implemented in December 2011. It has been well received by nurses and doctors on the unit because it helps them communicate effectively and prompts them to give the best care for every patient every time.
- Rates of ventilator-associated pneumonia, a serious hospital-acquired infection, have dropped dramatically and remained at nearly zero in the unit. Similar forms have been implemented in other intensive care units at Scott & White and are part of ongoing efforts to prevent hospital-acquired infections.

Targeted Cost Driver:

- Rates of hospital-acquired infection.

Strategy:

- Checklists and Goal Sheets

- Facilitate communication between physician and nurses, and across hospital shifts.

Improving Transitions from Operating Rooms to Intensive Care for Cardiac Surgery Patients

Description:

- When patients move from the operating room (OR) to begin their recovery in an intensive care (ICU) after heart surgery, they also move to the care of a new team of providers.
- Errors can happen if communication breaks down between the teams or across the care settings during these handoffs. The Joint Commission requires a standard approach to handoff communication and has established effective handoffs as one of its National Patient Safety Goals (2006).
- Dr. Jay Shake, the Director of the Cardiothoracic ICU at Scott & White Healthcare, led a team to improve communication during handoffs. The team initiated new protocols for handoffs between the OR and ICU. Key components of these protocols include:
 - The OR alerting the ICU before the transfer so the new care team is ready for the patient and waiting in the patient's new room when he or she arrives after surgery,
 - A communication checklist used when the patient arrives in the ICU room to ensure that the most important information about the surgery and plan for recovery is communicated in the same way every time, and
 - Ground rules for team members to ensure everyone communicates freely and can ask questions.
 - The team started the new protocol in Spring 2012. Teams were trained to use the protocols and started using them for every case.

Outcomes:

- The protocol has been well received and the team believes it has improved the completeness and efficiency of communication during handoffs. The long-term impact is being evaluated.

Targeted Cost Driver:

- Errors due to communication breakdown.

Strategy:

- Improving communication during handoffs.

Reducing avoidable hospital readmissions by encouraging and empowering patients to manage their healthcare needs

Description:

- A 63-year old female hospitalized (4-day Length of Stay) for sepsis due to urinary tract infection. She agreed to participate in the program and a home visit was conducted within 7 days of hospital discharge.
- At the home visit, eleven medication discrepancies were discovered, including Metoprolol, which was ordered at half the dose on the patient's medicine bottle.
- Other problems discovered during the home visit were patient's lack of follow-up physician appointment being scheduled because of not being established with a Primary Care Provider. "Red flag" symptoms were reviewed and patient was engaged in developing an action plan.

Outcomes:

- The patient was able to arrange for a follow-up appointment to take place within two weeks of hospital discharge.
- Approximately 2 ½ weeks after the CTI home visit, the patient began experiencing "red flag" symptoms and activated her action plan (contacting her Primary Care Provider's office to get a same-day appointment in the weekend clinic). Patient was found to have another UTI and was treated as an outpatient, averting an after-hours Emergency Department visit and possibly a readmission.
- The patient continued to use her personal health record to maintain an accurate medication list and attended her recommended follow-up appointments.

Targeted Cost Driver:

- Hospital readmissions

Strategy:

- Empowering patients to manage their healthcare needs through home visits and developing action plans.

The Scott & White Family Caregiver Program (FCP)

Description:

- The 6-month program is based on the Resources for Enhancing Alzheimer's Caregiver Health II (REACH II) intervention, which is one of the leading evidence-based approaches to support family caregivers of persons with Alzheimer's disease or dementia.
- The FCP provides the unique service of embedding caregiver supports within an integrated healthcare delivery system.

Positioning the FCP in this manner makes services available to caregivers during times of high stress and burden, i.e., hospitalization and acute care services.

- Patient example: 46-year-old female caregiver (CG) for her mother with dementia. At time of enrollment in FCP the CG was living with both parents, working three jobs, and fighting for custody of a nephew. CG's past medical history includes insulin-dependent diabetes (poorly controlled with HgbA1c of 14.0) and hypertension. Early in the intervention, CG was hospitalized for two days with dehydration secondary to intractable nausea and vomiting, and was thought to be related to exhaustion as well. She was angry with her other family members for not helping her care for parents, yet she continued to neglect her own self-care. The upcoming holiday season was stressful for her because the first anniversary of her daughter's death was approaching, and her sister had recently decided to stop cancer treatment.

Outcomes:

- Patient CG engaged in the home visits with the Dementia Care Specialist, identifying ways in which she could take better care of herself. She had begun going to church more regularly and exercising by the time of the second home visit.
- At the time of the third home visit, the CG had moved out of her parents' home and her family had begun helping much more with the mother's care, resulting in the mother being happier as well.
- At the end of the 6-month intervention, the CG was holding only one job, was taking college classes, and stated that she gained a great deal of knowledge and skills. She would refer back to the Scott & White publication *A Caregiver's Notebook* when she felt frustrated by her situation or to help explain something about her mother's illness to her family. There were no further hospitalizations.

Targeted Cost Driver:

- Long-term care

Strategy

- Caregiver empowerment and support

The Community Living Program (CLP)

Description:

- The CLP was established to implement a nursing facility diversion program for individuals at risk for nursing facility placement and Medicaid spend-down.
- The merging and integration of two evidence based interventions, the Coleman Care Transitions Intervention® (CTI) and the REACH (Resources for Enhancing Alzheimer's Caregiver Health) II Intervention, formed the basis for CLP. Formal support services

such as respite care, options counseling, and home modifications were also provided at no cost to the participant. All services were delivered according to a customized, ten-month plan of care that places equal emphasis on the person at risk of nursing home placement and the responsible family caregiver.

- Patient example: 63-year-old female admitted to SWMH with COPD and heart problems, referred to CLP by hospital case manager. Patient and her husband stated they felt she was “over-medicated” and was having hallucinations as a result. Patient had numerous medication changes at the time of discharge. A CTI home visit was made within two days of discharge with medication review, identification of “red flag” symptoms, and preparation for PCP follow-up visit. Home modifications were needed to promote safety and mobility. The patient was enrolled on hospice shortly after CLP enrollment, but subsequently came off.

Outcomes:

- No re-hospitalizations for the duration of the program. Concrete walkway was built to facilitate safe ingress/egress. Patient was provided with a lift chair to promote mobility in the home and to prevent falls.

Targeted Cost Driver:

- Long-term care

Strategy:

- Diversion from nursing facilities.

Diabetes Days

Description:

- This program brings together all the clinical services required to provide a diabetic with complete screening all within approximately 2 hours on weekends or evening hours.

Outcomes:

- The program has screened approximately 2,000 diabetics within the first 2 years identifying multiple undiagnosed conditions leading to early intervention that prevented significant morbidity.
- The program reduces the cost of providing proper diabetic management and reduces the costs of diabetic morbidity.

Targeted Cost Driver:

- Diabetic morbidity

Strategy:

- Proper diabetic management.
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Discharge Advocates

Description:

- Discharge Advocates schedules all post hospitalization appointments prior to discharge, reducing the confusion and difficulty patients face scheduling appointments independently.

Outcomes:

- This initiative has reduced re-admissions and improved the rate of kept appointments.

Targeted Cost Driver:

- Re-admissions and missed appointments.

Strategy:

- Reduce re-admissions and improve rate of kept appointments.
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Evaluating the Clinical and Economic Impacts of a Pharmacist-led Diabetes Co-pay Waiver and Medication Management Program

Description:

- Pharmacist interventions have been shown to improve diabetes outcomes and reduce costs. In 2005, Scott & White Health Plan implemented a pharmacist-led medication management program (MMP) to target high-risk diabetes patients in central Texas.
- The program provides monthly visits with a pharmacist, who provides lifestyle counseling and adjusts medications under a collaborative practice agreement. To promote continuity of care, co-pays for diabetes medications and supplies are waived for enrollees.
- This was a quasi-experimental study with a post two-year analysis. Control patients were identified retrospectively through a 1:1 match by age, gender, enrollment date, baseline A1c, and Charlson Comorbidity Index (CCI).
- Outcomes measured included hemoglobin A1c, medication adherence defined using Medication Possessing Ratio (MPR), and healthcare costs. Paired t-tests were used to measure the differences in outcomes within and between the intervention and control groups, and health care costs were compared using the bootstrap method to reduce the influence of outliers.

Outcomes:

- A total of 189 patient pairs were included in the study. Both the intervention and control groups had statistically significant reductions in A1c. The average A1c reduction was 45% greater in the intervention group than in the control group, but did not reach statistical significance between groups.
- Medication adherence (MPR) dropped after two years in both groups. However, the reduction in MPR was significantly smaller in the intervention group (-5.8% vs. -17.0%, p<0.05). Despite an increase in prescription cost as a result of co-pay waivers, the increase in diabetes-related costs for the intervention group was significantly less than the control group (7% vs. 37%, respectively, p=0.029). This was primarily driven by a marked decrease in hospitalization costs in the intervention group versus the control group (\$1,800 savings per participating member per year – intervention vs control).
- The combination of a pharmacist-led intervention with a medication co-pay waiver program can be an economically advantageous strategy to manage diabetes-related health care. Due to the long-term sequelae associated with diabetes, the two-year follow-up period could not provide adequate insight to the effectiveness of the MMP. A three-year outcomes analysis is currently underway, and a five-year study will be conducted when adequate sample size is attained.

Targeted Cost Driver:

- High-risk diabetes patients

Strategy:

- Pharmacist Intervention

¹ Agency for Healthcare Research and Quality. Big Money: Cost of 10 Most Expensive Health Conditions Near \$500 Billion. January 2008. <http://archive.ahrq.gov/news/nn/nn012308.htm>

² Harding A. Obesity and Asthma Are Linked: Study. Reuters. May 21, 2010.

³ Parekh AK, Barton MB. The Challenge of Multiple Comorbidity for the US Health Care System. Journal of the American Medical Association (2010). 303(13): 1303 – 1304.

⁴ McDonald KM, Sundaram V, Bravata DM, et al. Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies (Vol. 7: Care Coordination) Technical Reviews, No 9.7. Rockville, MD. Agency for Healthcare Research and Quality. June 2007.

⁵ Parekh AK, Barton MB. The Challenge of Multiple Comorbidity for the US Health Care System. Journal of the American Medical Association (2010). 303(13): 1303 – 1304.

⁶ Mike Gilliam: Adult Potentially Preventable Hospitalizations in Texas. UT Mentorship Program – Health Careers, November 21, 2013.

⁷ Ibid.

⁸ Peter Hussey, Christine Eibner, Susan Ridgely & Elizabeth McGlynn; Controlling U.S. Health Care Spending ---Separating Promising from Unpromising Approaches. New England of Medicine, November 2009.

⁹ CMS: Health Homes (Section 2703) Frequently Asked Questions. May 2012.

¹⁰ Milliman: Economic Impact of Integrated Medical-Behavioral Healthcare, April 2014.

¹¹ CBO: Federal health Care Spending: Why is it Growing? What Could be Done About it? November 13, 2013.

¹² Ibid.

¹³ Texas Health and Human Services Commission, in its Preliminary Medicaid Enrollment by Month report, estimates the Medicaid enrollment in August 2014 at just under 4 million. This differs from the case load numbers used in Figure 3. Not sure of the reason for the differences, perhaps it is related to the use of "member months". HHSC Medicaid member months search. <http://www.hhsc.state.tx.us>

¹⁴ Alliance for Health Reform. Cost Drivers in Health Care. April 2012.

http://www.allhealth.org/publications/Cost_of_health_care/Cost_Drivers_in_Health_Care_109.pdf

¹⁵ ibid.

¹⁶ ibid.

¹⁷ ibid.

¹⁸ Texas Health and Human Services Commission. Texas Dual Eligible Integrated Care Project.

<http://www.hhsc.state.tx.us/medicaid/dep/index.shtml>

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