

Multidisciplinary Practice Model Report

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- Casey Health Institute
- Allina Health Edina Clinic
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- Brigham and Women's Hospital Osher Centre for Integrative Medicine
- Cisco LifeConnections Health Center
- Community Health Care, Inc.
- Cancer Treatment Centers of America
- University of South Florida- USF Health Morsani Center
- Lehigh Valley Health Network

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Multidisciplinary Practice Model Report Descriptions



Casey Health Institute Integrative Primary Care Center

Casey Health Institute (CHI) is an integrative medicine center that incorporates complementary and integrative health providers into its primary care medical home model. CHI is located in Gaithersburg Maryland, a suburb of Washington DC, and was established in 2011 through a philanthropic grant. Current providers include primary care physicians and nurse practitioners, a clinical psychologist, chiropractic physician, naturopathic physician, acupuncturists and yoga specialists.

Allina Health – Edina Clinic Primary Care Clinic

The Allina Health Edina Clinic is an ambulatory primary care clinic located in Edina, Minnesota, a suburb of Minneapolis. The Allina Health System operates 14 hospitals and more than 90 clinics throughout Minnesota and western Wisconsin. The Edina Clinic offers primary care and select specialty services including chiropractic care provided by 3 doctors of chiropractic, as well as diabetes care, anticoagulation clinic, mental health, podiatry, and rheumatology.

Beth Israel Deaconess Hospital - Plymouth Spine Care Center

Beth Israel Deaconess Medical Center operates group of hospitals in Massachusetts including its flagship location in Boston. Chiropractic services are part of the BID-Plymouth Spine Care Program located in Plymouth, MA. The multidisciplinary program includes six chiropractors, as well as neurosurgeons, an orthopedist, physiatrists, a pain medicine specialist, physical therapists and a physician assistant who use a standardized spine care pathway to deliver evidence-based care to patients with back conditions.

Brigham and Women's Hospital - Osher Centre for Integrative Medicine Integrative Medicine Center

The Osher Center for Integrative Medicine at Harvard Medical School and Brigham and Women's Hospital (BWH) was established in 2002 through a philanthropic grant from the Bernard Osher Foundation. Chiropractic clinical services were established in 2008, with 2 doctors of chiropractic currently providing conservative care for musculoskeletal-conditions at the 757-bed BWH facility located in Chestnut Hill, a suburb of Boston, Massachusetts.

CISCO, LifeConnections Health Center Corporate Health Center

LifeConnections Health Center (LCHC) is an onsite corporate medical center providing integrated health care exclusively to Cisco employees and their dependents. Cisco Systems is a NASDAQ publicly traded multi-national technology corporation founded in 1984, with its headquarters located in San Jose, California. The multi-disciplinary clinical staff includes seven primary care physicians, two pharmacists, two chiropractors, two physical therapists, one acupuncturist, two optometrists, one dentist, one health coach and one EAP counselor.

Community Health Care, Inc. Federally-Qualified Health Center

Community Health Care, Inc. (CHC) was founded in 1975 to provide primary medical and dental care to the greater Quad City Iowa and Illinois region. CHC currently runs 9 Patient-Centered Medical Homes with around 100,000 provider visits occurring yearly. Chiropractic services were introduced in 2011 as part of a federally-funded research study and are provided in 2 CHC clinics by 2 doctors of chiropractic. Students from Palmer College of Chiropractic may complete clinical rotations at CHC.

Cancer Treatment Centers of America- Southeastern Regional Medical Center Cancer Hospital Network

Cancer Treatment Centers of America (CTCA), founded in 1988, is a for-profit network of hospitals serving cancer patients throughout the United States, including at its Southeastern Regional Medical Center, located in Newnan, Georgia. CTCA offers integrative therapies such as acupuncture, nutrition, naturopathy, rehabilitation, pain management, and spiritual support, to manage cancer care side effects. Chiropractic care, delivered by 2 chiropractors, have been available since its opening in 2012.

University of South Florida- USF Health Morsani Center Orthopedic and Sports Medicine Clinic

The University of South Florida (USF) Health Morsani Center is an academic medical center located in Tampa. USF operates 8 health care centers, with its Department of Orthopaedics and Sports Medicine staffed by five orthopaedic surgeons, one primary care sports medicine physician, one chiropractor and one physician assistant. Chiropractic services include treatment of community-based patients with musculoskeletal conditions as well as support for collegiate sports teams.

Lehigh Valley Health Network- Cedar Crest campus Ambulatory Care Center

Lehigh Valley Health Network (LVHN), is a group of hospitals, community-based primary care clinics, and community health centers providing healthcare to communities throughout eastern Pennsylvania. Chiropractic services were added to the Department of Medicine in 2012. Currently, there are 5 doctors of chiropractic, providing patient care services in 2 LVHN clinics, located in Allentown, PA and Bethlehem, PA.



Casey Health Institute

Integrative Primary Care Center

Facility Background/ Data	Year established/historical background	Casey Health Institute (CHI) was established in 2011through a philanthropic grant from the Eugene B. Casey Foundation. The foundation's sole trustee, Betty Casey, identified two local physicians, David Fogel, MD and Ilana Bar-Levav, MD to plan and implement the facility. Drs. Fogel and Bar-Levav are internal medicine physicians who practiced outpatient psychotherapy with a mind/body focus.	
	Ownership/type/focus	CHI is an advanced primary care initiative that incorporates a selection of onsite complementary and integrative health providers into its "medical home." CHI is an entity of the nonprofit Casey Health Institute Foundation. Although it is endowed with philanthropic funding, part of its strategic plan is to become self-sustainable and profitable. It defines itself as an integrative medicine center, with a mission "to create a new model of integrative health care, a model that transforms the patient/provider relationship in the context of a non-profit, community-based health center."	
	Location Geographic region, urban/rural Motro gross population 	CHI is located in Gaithersburg, MD, (population 59,933), a suburb of the Washington, DC metropolitan area (population 6,033,737)	
	Metro area population Leadership structure/composition	CHI is led by David Fogel, MD (co –founder and CEO) and Ilana Bar-Levav, MD (Co-founder and President). Clinical services are overseen by Medical Director Kisha Davis, MD, MPH (family medicine).	
	Size		



	 Beds/catchment/enrollees Departments/employees 	Four primary care physicians (one has fellowship training in integrative medicine) One primary care nurse practitioner One clinical psychologist One chiropractic physician One naturopathic physician Two acupuncturists One yoga specialist	
	Revenue sources (private, Medicare, Medicaid)	The facility accepts a mixture of insurance, Medicare, Medicaid and self-payment cases. CHI is working to receive ACO recognition and transition into value-based care delivery.	Actually, we didn't know which ones were going to work (financially) and which ones weren't. We went into this with eyes wide open and depending on our needs and the needs of our patients, we made use of some sides of the modalities. (Staff)
	 Notable current initiatives/changes CAM, spine, pain/opiate Patient experience 	Expanding community wellness outreach in items such as health talks, yoga classes. Exploring additional income diversification through subleasing office space.	
Implementati on of chiropractic services	Impetus/climate/background	Founding CEO decided to include chiropractic based on his prior experiences working with chiropractors in prior group and private practice in the1990s.	
	Planning process/timeline	In 2010 Mrs. Betty Casey invited Drs. Fogel and Bar-Levy to begin the process of developing an integrative medicine center consistent with her vision. The pair investigated a number of existing integrative medicine centers that were then members of the Bravewell Collaborative, and combined lessons learned from those centers along with their own clinical experience in the field. CHI. Chiropractic services were included in the initial planning of the facility from the start.	We went around the country and looked at a variety of different practices, business and medical models, and proposed the best of everything, and she said, 'sure.' (Staff)



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	Year clinical services established	The chiropractor was identified through word of mouth during the start-up process. Collegial interpersonal traits, commitment to the facility's mission, and clinical competence were key influences on the selection. Chiropractic services started with the initial launch of the facility in 2013.	In our interviewing process, who the (provider) is and whether they fit the culture is as important as their training. (Staff)
Chiropractic Clinic Structures	 Administration Department/service line Performance measures/benchmarks 	The facility is largely structured as an advanced primary care initiative, with all clinical services reporting to the medical director. Currently there are no specific performance metrics or benchmarks on which the chiropractic clinic is assessed. The chiropractor is assessed via a performance evaluation process consistent with that for other clinicians.	
	Location/space/equipment	The chiropractic clinic is primarily functions out of two exam/treatment rooms furnished with state of the art chiropractic tables and other necessary equipment.	I think that I'm very well positioned. I think in the big picture of things, Casey Health Institute provides exactly what I need, and other providers need to provide really, truly, good care. (Provider)
	Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities Professional attributes Interprofessional attributes 	One full-time DC Full scope of clinical services consistent with training and state licensure Staff IPE; public presentations; review/input on business practices/productivity The chiropractor had 6 months of clinical training in a hospital while in chiropractic college, then 2 years of clinical practice experience before being hired by CHI. Those 2 years included 2 months of work in an integrated primary care group practice in Africa. The chiropractor demonstrated high	



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		interpersonal, communication and presentation attributes	
	Support staff Discipline/number 	A medical assistant is assigned to the chiropractic clinic to provide clinical support which can include obtaining patient	
		subjective information, providing soft tissue therapies, and/or providing exercise instruction.	
	 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	Patients access the CHI chiropractic clinic either directly or be referral from another CHI provider. The estimated breakdown was 25% direct access, and 75% referral. Currently the clinic sees about 50 patient visits in a typical week, and still has available time slots. Referring providers and the chiropractor felt that access to the clinic was adequate for timely scheduling of initial consultation and follow-up visits.	
	Relevant partnershipsAcademic, research	The chiropractic clinic was not involved in clinical training or research initiatives.	
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity 		
	Access patterns seen	Some patients seek chiropractic care directly, and others are referred by other providers in the facility. Of the latter group, some of those patients would not have chosen to see a chiropractor if not for the referral of the given medical provider.	I was not of the opinion that a chiropractor could provide the standard of care that an orthopaedist or a medical doctor could provide. I was very skeptical. So, talking to (primary care physician) whose opinion I respect a lot, we discussed that. Based on the fact that (chiropractor) was on staff and (primary care physician) felt that (chiropractor) was going to be well qualified



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			to start to help me, I decided to try it. (Patient)
	Services provided		
	Diagnostic, therapeutic	Full scope; emphasis on functional manual therapy and therapeutic exercise	I'm really just big on active care and getting people active and making sure they're making the lifestyle changes they need to. (Provider)
	Case management		
	 CPGs/care pathways used Outcome assessment/reporting Communication/collaboration with other providers 	The chiropractic clinic uses several widely- referenced functional outcomes measures which are consistent with requirements of certain third party payers. Interprofessional communication takes place through routine formal team meetings, clinical documentation and electronic messaging in the EMR and informal face to face discussions as needed. CHI conducts a weekly team huddle for all clinicians following a "speed dating" model. Overall, the approach to case management between the chiropractor and other clinicians appeared to be highly collaborative.	If I ever have a question, I can always just grab the chiropractor in the hall way and ask, "Hey, I have this (patient), what do you think?" (Provider) I'm pulled in a lot to primary care, to assess maybe a knee or something that they have questions on. So a lot of time, they'll just call you up. (Provider)
Impacts/Outc omes	Clinic function Use, utilization, performance benchmarks 	CHI is working to achieve NCQA recognition as a Patient-Centered Medical Home, so the focus has been on collecting the metrics required for this effort. The facility had to overcome significant technical issues with its EMR, and now is just beginning to incorporate other patient-oriented outcomes measures.	What we're focused on right now is trying to meet the metrics for a patient-centered medical home. We just incorporated some Promise measures from the patient outcomes into our initial assessment. (Staff)
	Patient statusOutcomes, satisfaction	Patients reported satisfaction with the care provided by the chiropractor and satisfaction that the chiropractor was part of the broader	The other places where I went, the sessions were really fast and I didn't get a chance to explain all of my concerns to the doctor. I



	team. Patients and referring providers felt that the length of the chiropractic visits was appropriate, and the focus on active care and home exercise was valuable.	didn't really feel like I got the best care. It felt rushed. (Patient)
 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	The chiropractic service appears to be highly valued by facility leadership and referring physicians. Subjects reported very favorable perceptions of both the quality of patient care, and the collaborative nature of the chiropractor.	Just from the cost to the nation and the invasive procedures that can be avoided are so astounding if you look at the data, it's a no-brainer that a chiropractor has to be part of a primary care team, especially in integrative but at any primary care, I would say. (Provider)
	There are currently no fiscal benchmarks for the chiropractic service. These are in process of being implemented for all services in the upcoming year. Compared with other medical services covered by third party payers, chiropractic services generally are reimbursed at lower rates, and require more administrative effort to process claims.	I think (the chiropractic clinic) is a big benefitto our patients. I think it's actually underappreciatedbecause the reimbursement is so low. So if you judge the chiropractic clinic based upon its financial it looks very low, but if you were to ask patients that have a visit it's very high. (Provider)
		My goalwas to integrate chiropractic serviceswhere people might not have been offered it before. So I feel like introducing chiropractic in this primary care setting has done exactly thatI see it in those people that aren't being given pain meds and being sent to me instead, and that makes me really happy. (Provider)

Notes: Population data from 2014 US Census Bureau estimate



Allina Health - Edina Clinic Primary Care Clinic

Facility Background/ Data	Year established/historical background	 In 1993 HealthSpan and Medica merged to form Allina Health System, a not-for-profit integrated health care system committed to enhancing the health status of the communities it serves. In July 2001, Allina Health System was restructured into two, independent, non-profit entities: Medica, a health plan organization, and Allina Hospitals & Clinics, a healthcare delivery organization. Allina Hospitals and Clinics subsequently changed its name to Allina Health to reflect a new mission that shifts the emphasis away from places that people go when they are sick and onto disease prevention and personal vitality. 	
	Ownership/type/focus	Allina Health is a not-for-profit integrated health care system based in Minneapolis, Minnesota. The Allina Health Edina Clinic is an ambulatory primary care and specialty clinic.	
	 Location Geographic region, urban/rural Metro area population 	Allina Health owns or operates 14 hospitals and more than 90 clinics throughout Minnesota and western Wisconsin. The clinic is located in Edina, MN (population 47,941), a suburb immediately southwest of Minneapolis, MN (Metro area population 3,524,583).	
	Leadership structure/composition	Allina Health is led by President & Chief Executive Officer Penny Wheeler, MD.	



	Size • Beds/catchment/enrollees	The lead physician for the Edina Clinic is Scott Flaata, DO. Allina Health's 2015 annual net operating revenue was \$3.8 billion. The system	
	Departments/employees	includes1,789 staffed beds, 27,332 employees, and 6,000 associated and employed physicians. The Allina Health Edina Clinic is a 23 room facility providing primary care and select specialty services including chiropractic care, diabetes care and education, anticoagulation/INR clinic, mental health, podiatry, and rheumatology.	
	Revenue sources (private, Medicare, Medicaid)	The clinic accepts a mixture of cases including private insurance, Medicare, Medicaid, and self-payment.	
	 Notable current initiatives/changes CAM, spine, pain/opiate Patient experience 	The facility offers acupuncture, massage therapy, nutritional consultations, aroma therapy, wellness coaching, and healing touch.	
Implementati on of chiropractic services	Impetus/climate/background	Establishing a chiropractic clinic was initially conceived more than 20 years ago by the District Medical Director. Although at that time only about only about 1/3 of the physicians approved of the idea, the District Medical Director was an innovator and a strong advocate for adding chiropractic services.	It was the idea of the medical director for this region, that he was really open to alternatives for his patients and got tired of writing scripts all the time, for patients, especially with back pain and neck pain. And so he sought out looking for a chiropractor, how might this blend with a primary care setting? (Provider)
	Planning process/timeline	 The Lead DC was introduced, by a friend, to the District Medical Director who was looking at adding an additional physician to the clinic. The planning process was more educational, helping colleagues understand the DC's scope of practice. The lead DC's former clinic manager was hired by Allina 	Eventually we hired ten chiropractors within the system and I actually helped train all those sites, all the physicians, all the meetings, to get all those sites established and set up. So it really is just a lot of leg work, a lot of communication, and I think that's probably the key, is the communication." (Staff)



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		 and provided guidance. Mainly, it was a "learn and grow" process. Over 15-20 years of time, planning process has grown clinic to include several multidisciplinary providers including internal medicine, psychology, chiropractic with acupuncture, and a dietician. 	It's a nice clinic to practice in terms of location-wise and great colleagues and the fact that we are not just internal medicine here, but we have other things like psychology, chiropractors, we have a dietician. So, that's just like a multi- disciplinary approach, which I think is great, yes. (Provider)
	Year clinical services established	In 1996 the current lead chiropractor was offered a position at Allina Health to start integrating chiropractic services at the Edina location.	
Chiropractic Clinic Structures	Administration Department/service line Performance measures/benchmarks 	The lead DC oversees chiropractic clinic activities. The clinic chiropractors are assessed on a model including productivity and patient satisfaction.	All of our providers have work RVUs, so they have a budget and are expected to maintain or exceed their budget work RVU. So that's one measure. But then we read patient comments, we do CG CAHPS, patient surveys, and the patient comments are just extremely high for all three of the chiropractors. They all score really highly on patient experience, on provider communication, so I think that they're doing a great job.(Staff)
	Location/space/equipment	The chiropractic clinic includes four examination/treatment rooms furnished with state of the art tables and other necessary clinical equipment. The facility uses the EPIC electronic medical record system, with the MyChart patient portal.	
	Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities Professional attributes Interprofessional attributes 	The chiropractic clinic is staffed by 3 DCs (2.3 FTE). There are 2 other DCs at additional locations in the Allina Health system. Chiropractor privileges are consistent with training and state licensure. DCs participate in non-clinical activities including grand rounds presentations and	



		service on hospital quality assurance and other committees.	× · · · · · · · · · · · · · · · · · · ·
	Support staff Discipline/number 	One full-time and one floating certified medical assistant (CMA) provide clinical support to the facility chiropractors.	
	 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	Patients may self-refer or be referred from other providers, most often primary care, sports medicine/orthopedics, and the Penny George Institute for Health and Healing. The chiropractic clinic is open Monday through Friday for about 48 hours per week. New patient visits are scheduled for 45 minutes, and follow-up visits for 15 minutes.	It could be that a patient may have to wait two weeks to be seen, but that's rare, because our chiropractors want to see people as soon as possible, so they're staying late, they're working over their lunch hours, they are double booking just to get these patients in. (Staff)
	Relevant partnerships • Academic, research	On average the clinic sees 18 new patients and 215 follow-up visits per week. Allina Health is home to the Penny George Institute for Health and Healing, a major integrative medicine effort founded through philanthropic support. As of Spring 2017 the Institute will include its first Allina Health chiropractor.	
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity Access patterns seen 	The majority of patients are adults seen for musculoskeletal pain conditions of the neck and/or lower back. Patients with headaches and extremity musculoskeletal conditions are also common. A typical patient is a female office worker. Clinic chiropractors routinely provide expedited access for acute cases.	My initial expectations were usually more musculoskeletal-based chronic back pain and neck painhere in [the Edina Clinic] they focused a lot more on acute care type of chiropractic care and so for that reason I was able to use it more in the sense of acute injuries. (Provider)
			Given the relationship that I have with our chiropractor group, they understand if I have a patient with a more acute need that they will work them into their schedule. And it works both ways. If they have someone that



			they want me to see more urgently, I'll do
	· · · · ·		the same thing. (Provider)
	Services provided	The chiropractic clinic provides full scope	
	 Diagnostic, therapeutic 	diagnosis and management of	
		musculoskeletal conditions. The most	
		common treatment options are manipulation	
		and mobilization techniques, manual	
		myofascial therapies, acupuncture, and	
		physical modalities. Active approaches	
		include patient education, therapeutic	
		exercise, and nutritional and lifestyle	
		recommendations.	
	Case management	Treatment plans are individualized based on	
	 CPGs/care pathways used 	patient factors. An initial treatment trial	
	Outcome	ranging from 1-6 visits is used to assess	
	assessment/reporting	patient response and determine next steps.	
	Communication/collaboration	Clinical outcomes are assessed using a	
	with other providers	number of validated instruments to measure	
	•	pain intensity, disease-specific pain	
		interference, and functional ability.	
		Interprofessional communication occurs	
		readily and is facilitated by the physical co-	
		location of clinicians and the functionality of	
		the EMR.	
Impacts/Outc	Clinic function	Allina Health uses the Agency for	
omes	Use, utilization, performance	Healthcare Research and Quality's Clinician	
	benchmarks	& Group Survey, Consumer Assessment of	
		Healthcare Providers and Systems (CG-	
		CAHPS [®]) to survey patients about their	
		perceptions of care received. The	
		chiropractic clinic has been among the	
		Allina Health Edna Clinic's top performers	
		on this measure.	
	Patient status	Patients expressed high satisfaction with	I 100% can tell you [patients are] very
	Outcomes, satisfaction	the quality of care they received from the	happy. I have not had any patient make a
	ŕ	facility's chiropractors. Patients also	complaint to me about the chiropractic care.
		appreciate the collaborative approach by	Andfor many of them it's a real



	which chiropractic services are integrated with the overall clinical team.	convenience to be in the same building as their Primary. (Provider)
		Even after that initial time period that I had first seen [the chiropractor], everything was better. Like the pain, I don't have the shooting pains up and down my back any more, up and down my spine, which is a huge improvement, in and of itself. (Patient)
 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	The chiropractic clinic appears to be highly valued by facility leadership and referring physicians. Staff reported very favorable perceptions of both the quality of patient care, and the collaborative nature of the chiropractors.	I don't think I could provide as good care with solid outcomes without having chiropractic available for my patients. (Provider)
	Allina Health DCs serve on various hospital committees including the Concussion Work Group, Sports Medicine Advisory Council, Medical Spine Program, Medical Advisory Council and Twin Cities Spine Center Grand Rounds.	I think there's great value and I think the access people have to be able to get in quickly and get their acute [pain] concerns addressed right away is really key. (Provider)
	The relatively low insurance reimbursement rates for chiropractic services limit the chiropractic clinic's impact on the facility's overall fiscal bottom line.	Part of what's allowed there to be success is that we can all come to the common ground that it's not about me or what I doit's all about getting that patient to the right place at the right time for the right care. (Provider)

Notes: Population data from 2010 US Census Bureau estimate



Beth Israel Deaconess Hospital - Plymouth Spine Care Center

Facility Background/Data	Year established/historical background	Beth Israel Deaconess-Plymouth (BID- Plymouth) was formerly known as Jordan Hospital. Jordan Hospital was a local facility in operation in Plymouth, MA since the early 1900s. In 2014 Jordan Hospital joined the Beth Israel Deaconess Medical Center group of hospitals.
	Ownership/type/focus	Beth Israel Deaconess Medical Center operates group of hospitals in Massachusetts including its flagship location in Boston, affiliated with Harvard Medical School, as well as facilities in Needham, Milton, and Plymouth.
	LocationGeographic region, urban/ruralMetro area population	BID-Plymouth is located in Plymouth, MA (population 58,271) approximately 40 miles south of Boston.
	Leadership structure/composition	Chiropractic services are part of the BID-Plymouth Spine Care department, led by Ian Paskowski, DC (medical director)
	Size Beds/catchment/enrollees Departments/employees 	BID-Plymouth is a155-bed, acute care community hospital. The Sine Care program includes six chiropractors, three surgeons (two neurological, one orthopedic), two physiatrists, one ain medicine physician, two physical therapists and one physicians assistant.



Implementation of chiropractic services	Revenue sources (private, Medicare, Medicaid) Notable current initiatives/changes • CAM, spine, pain/opiate • Patient experience Impetus/climate/background	 The facility accepts a mixture of insurance, Medicare, Medicaid and self-payment cases. The Spine Care program was the first community-based program in Massachusetts to receive certification from the National Center for Quality Assurance (NCQA) and the Back Pain Recognition Program. The medical system in Massachusetts is considered very conservative, and at the time of initial implementation Jordan Hospital was skeptical of including chiropractic care. However the CEO had a very positive personal experience with chiropractic care, and had previously worked in more liberal states and healthcare environments, and was open to bringing innovative therapies into a conservative environment. 	We were the first NCQA certified low back pain program in the country I believe, in a community hospital so I think that the research and the science bear out the fact that this works. (Staff) I found out that the American public spent amazing amounts of dollars on non-traditional medical approaches and that they worked. So we did a lot of research. It wasn't a money thing. This is what the public wants and why doesn't the health profession provide it and provide it safely and follow protocols and clinical pathways and everything else? So there was just a whole new world of medicine out there in parallel to what we were doing in traditional physical medicine. (Staff)
	Planning process/timeline	 The CEO brought a specific practitioner on board to set up the spine care program. The planning committee included an orthopedic surgeon and other physicians. In 2006, the lead chiropractor joined the hospital as a staff physician and was approached later to help develop a comprehensive program. 	Were there political issues, difficulties along the way and all that? Yes. Did I pay much attention to them? No And now there is a very close relationship between our orthopedic department, our neurosurgical department and [chiropractic] because I think they've discovered the value of each other and that they complement one another, as opposed to compete or philosophically



			and strategically in opposition to one another. So that's the context. (Staff) I think it's a huge advantage, huge. It takes time to develop and integrate a program like this. Integrate it clinically, but also integrate it culturally, and we're there. The neurosurgeons and chiropractors are partners, which you just don't see that in many places, so it's great. (staff)
	Year clinical services established	2008	"We were the first NCQA certified low back pain program in the country I believe, in a community hospital" (Staff)
Chiropractic Clinic Structures	 Administration Department/service line Performance measures/benchmarks 	Chiropractic services are part of the Spine Care program.	
	Location/space/equipment	The spine center includes five chiropractic examination/treatment rooms furnished with state of the art chiropractic tables and other necessary clinical equipment. There is a large physical therapy center with a full complement of exercise equipment. The facility also includes a reception area, front desk and several shared office spaces.	Appointments ready, they have two locations. There's one that's closer to my house than here, that's the one I usually go to. It's a little bit smaller and you're in and out, there's never any wait. If it's a wait, it's three minutes, which is nothing compared to some of the other doctors that you'll see. Everything is nice and clean, and it's been a very good experience. (Patient) She was knowledgeable about what
			was going on in the emergency room over at the hospital and accessed the



record from the hospital. She w in with whatever the emergenc people were thinking about. Sh immediately contacted [the doc	y room e had tor's]
office and started communicati him that I was a patient over he (Patient)	
ChiropractorsWe add chiropractors as we ne more access. I think we've add since I've been herethere's r shortage of need for them. (Stat We are open eight to six, Mono- through Friday, and we are open to twelve on Saturdays. Right r have seven. We have six chiro and one physiatrist. We're at tw for the chiropractors. We're at tw sites for the physiatrist. (Staff)	ed two o (ff) lay en eight ow we practors vo sites
Support staff We have four full-time secretary • Discipline/number then we have one secretary why works Saturdays, so she's just hours. We actually have a billing company, well it's a billing depart of the program, they do so the billing. (Staff)	io just five g artment. Jally, me of
Patient access Patients can access the spine center We get anybody who fits that c • Referral, self-referral directly, however many are referred by criteria from the emergency root	



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	 Appointment availability/wait Appointment length, number per week 	other providers following the hospital's spine care clinical pathway. On average 90 new patients are seen each week. Many of these cases are first time chiropractic patients, and many have stated that they would not have otherwise chosen to see a chiropractor. The clinic provides access within 24 hours for most cases.	get a referral from those patients and we get a lot of PCPs, a lot of specialists. They really do come from all over. (Staff) I would not have been here without a referral because I just have never in my 72 years thought of chiropractic as something I wanted to try out. (Patient)
	Relevant partnershipsAcademic, research	State-level opioid reform task force	
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity Access patterns seen 	Most patients are described as 50-70 years old with mechanical low back pain. Many of the patients are on a couple of medications and working with another provider on health care lifestyle modifications. Around 90% of new patients to the Spine Center are naive to chiropractic care. Patients can self-refer to the Spine Center, and many patients are referred from the emergency room at Beth Israel Hospital or from their primary care provider.	
	Services providedDiagnostic, therapeutic	Spine center chiropractors provide full scope diagnosis and management of musculoskeletal conditions. Treatment options include manipulation and mobilization techniques, manual myofascial therapies, and therapeutic exercise.	
	Case management CPGs/care pathways used Outcome assessment/reporting 	A low back care pathway, using the STarT Back assessment, has been established in the electronic health care	I was impressed with the program that [the chiropractor] and the team at BI had put together and the clinical



	Communication/collaboration with other providers	system in the emergency department at Beth Israel. Patients presenting to the emergency room with non-emergency low back pain are referred to the Spine Center. This care pathway has reduced the number of repeat visits to the emergency room for low-back complaints by around 50%. All chiropractors working at the Spine Center manage a patient's care based on the patient and the complexity of their condition. The chiropractors express that patient management is driven by current best practice guidelines or recommendations and current research. The chiropractors and other medical providers in the Spine Center use the hospital's electronic medical record for clinical documentation and to communicate with each other and other providers at the hospital. Providers also communicate by telephone and/or in person as needed. All providers have expressed the ease of in person communication due to the close proximity that all of the Spine Center providers work. The physical therapists in the Spine Center are not on the	 pathways, in order to get the patients directed where they needed to go in the proper way and get the care that they needed. (Staff) His pathway is pretty in-depth of where that patient should be funneled to, and how it should be funneled to, so everybody has access, even our primary care physicians, of that pathway. So that when the patient comes in they're looking at certain clinical measures to say where that person falls in. Do they need an MRI? Do they need to go right to neurosurgery or can we send them over to chiropractic for an evaluation and a review and do a plan of care there? (Staff)
		providers in the Spine Center use the	
		clinical documentation and to communicate with each other and other	
		communicate by telephone and/or in person as needed. All providers have	
		communication due to the close proximity that all of the Spine Center	
		in the Spine Center are not on the hospital's electronic health record system. Communication between the	
		chiropractors and the physical therapists happens most often as in person, face-to-face consultations.	
Impacts/Outcomes	Clinic function	Large scale analysis is being conducted on the decreased use of low	Our experience here with this low back pain protocol [is that we have] a



	Use, utilization, performance benchmarks	back pain patient return visits to the emergency department as a result of the implementation of the low back pain care pathway. The implementation of this STarT Back care pathway between the emergency department and the Spine Center has resulted in a significant decrease in return visits to the emergency department for low back pain patients that has resulted in hundreds of thousands of dollars saved.	standard way of treating low back pain in this community that is low cost, with good outcomes, and in general the population is much better and much healthier as a result. So it does work. (Staff) I'd like to think money is the last thing we look at but what [the Spine Center] program has done is it has saved this community a tremendous amount of money in unnecessary tests and unnecessary surgeriesI can tell you that the absolute drop in MRIs and CTs that have taken place in this community is measurable. (Staff)
Patie •	nt status Outcomes, satisfaction	Patients report high satisfaction with the quality of care provided by center chiropractors, and the clinical outcomes achieved. Patients also appreciate the collaborative team-based approach by which chiropractic services, other spine center services, and other hospital services and providers are integrated. All patients are mailed a Press Ganey survey to assess their satisfaction with care. The Spine Center always ranks as one of the highest groups in patient reported satisfaction in the Beth Israel Hospital setting.	His Press Ganey scores are off the chart. He leads the organization. So based on his metrics, he scores above the ninetieth in all areas. Access to care, follow-through, satisfaction with the office, satisfaction with patient care, satisfaction with testing, everything. The Spine Center as a whole. Yes, all of them. (Staff)
Syste • •	em status Facility actual (or impression of) value Non-DC staff impression DC staff impression	In 2012-13 the Spine Center undertook a collaborative effort with BID Plymouth aiming to reduce the number of hospital admissions for patients with medical low back pain conditions (DRG-552). After the first full year of program utilization by ED staff and physicians	[Spine Care medical director] has put together a phenomenal low back pain and chiropractic program here. I truly believe that that service has helped as many people in our community as anything that we do. (Staff)



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the ED admission rate for DRG-552	"value-based care really means
was reduced by over 50%. For the	team-based care. And if everyone's
subsequent four years savings at this	operating as a team, the patient's
point of service has averaged over	going to benefit in the end, but the
\$620,000 per year.	providers are going to benefit because
	it's going to lessen their burden, as
There has been a doctor of chiropractic	well." (Provider)
added every year since the start of the	
Spine Center. Chiropractors in the	The skeptics come around quickly,
center comment that they are busy	particularly I can think of a PCP who
when on schedule and feel that they	came from another system and was
are highly valued in the Beth Israel	highly skeptical until he saw the data.
Hospital setting. Administrators	Then because a big part of how they're
commend the patient-centered nature	compensated is from risk, that was one
of the providers, who make themselves	of the biggest proponents. We have
readily available to patients.	these low back pain protocols and he
	was hesitant to utilize those until he
	saw the actual spend decrease, so you
	know this, it's all about the data, get
	the data in front of them. (Staff)



Brigham and Women's Hospital - Osher Centre for Integrative Medicine Integrative Medicine Center

Facility Background/Data	Year established/historical background	The Osher Center for Integrative Medicine at Harvard Medical School and Brigham and Women's Hospital (OCIM) was established in 2002 through a philanthropic grant from the Bernard Osher Foundation. The Osher Foundation has also established similar programs at the Karolinska Institute, Stockholm Sweden; Northwestern University, Chicago, IL; University of California, San Francisco, CA; and Vanderbilt University, Nashville, TN.	
	Ownership/type/focus	The OCIM engages in research, education and clinical care. Patient care is provided by the Osher Clinical Center (OCC), located in Brigham and Women's Hospital (BWH). BWH is an internationally-known general medical and surgical facility that is a teaching affiliate of Harvard Medical School.	
	Location Geographic region, urban/rural Metro area population	OCC is located in Boston, MA (population 667,137) within the greater Boston metropolitan area (population 4,732,161). The OCC is in Chestnut Hill, which is a suburb of Boston. The clinic is located in an outpatient center approximately 4 miles from the main hospital	
	Leadership structure/composition	The founding Director of OCIM was David Eisenberg, MD. It is now led by Helene Langevin, MD (Director). Clinical care at OCC is led by Donald B. Levy, MD (Medical Director).	



	Size Beds/catchment/enrollees Departments/employees Revenue sources (private, Medicare, Medicaid)	BWH is a 757-bed facility with 45,352 admissions in the most recent year reported. It includes 150 outpatient practices with over 1,200 physicians. OCC sees a mixture of self-payment, insurance and Medicare cases.	
	Notable current initiatives/changes CAM, spine, pain/opiate Patient experience	Research, education, and clinical care in integrative medicine are featured aspects of the Osher integrative medicine program. Career development for complementary and alternative medicine providers are integrated into the program through the National Institutes of Health.	
Implementation of chiropractic services	Impetus/climate/background	OCIM was started to research integrative settings and possibly to be replicated. Initially, there was a significant resistance to including chiropractic services. Much of this was related to uncertainty about safety of cervical manipulation in particular. The lead DC and Medical Director were instrumental in educating other stakeholders, thus overcoming the resistance.	"We decided that a chiropractor really wouldn't be part of this if there was going to be any limitation in the scope of practice" (Provider)
	Planning process/timeline	The lead DC was identified by Dr. Eisenberg, and starting in 2003 was invited to attend monthly planning meetings at the OCIM. Later, a group of 16 or more planners, including representatives from the medical and chiropractic communities, met weekly for 14 weeks to discuss the integrative center.	Of the center's chiropractors - "Dr. Eisenberg found the whole crew." (Provider)
	Year clinical services established	2008	



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Chiropractic Clinic Structures	Administration Department/service line Performance measures/benchmarks 	OCC is structured as a group practice with all services overseen by the Medical Director.	
	Location/space/equipment	Two examination/treatment rooms are dedicated for chiropractic services. These are furnished with state of the art chiropractic tables and other necessary equipment.	
		Currently 3 rooms	
	Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities Professional attributes Interprofessional attributes	Three chiropractors are on staff at OCC. The lead DC is a full-time salaried employee and the other two DCs are part-time per diem employees. CURRENTLY 2 DCs Privileges include full scope of clinical services consistent with training and state licensure, although the facility follows Medicare guidelines which do not permit DCs to order advanced imaging in-house.	
		The chiropractors describe themselves as diversified, preforming numerous different treatments. A background working in or studying in a medical setting is beneficial.	
		The chiropractors expressed the need to have the ability to communicate in a medical setting. The need for across specialty communication is vital for patient care.	



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	Support staff Discipline/number 	OCC employs one medical assistant who provides clinical support to all providers as available. Administrative staff includes a practice administrator and a practice coordinator.	
	 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	The patient base is both referred from providers in the hospital system and self-referred. The primary chiropractor expanded his schedule at the clinic allowing for increased patient appointment availability. Patient wait for a first appointment is usually under a week.	If you're looking to see a chiropractor for the first time you are usually in some sort of pain. So, the sooner the better (Staff)
	Relevant partnerships Academic, research 	OCC has just completed a large scale 3-year low- back pain study through BWH. Both chiropractors are active in conducting clinical research. Clinicians from OCC participate in monthly integrative medicine ground rounds.	
Chiropractic Clinic Processes	Patient characteristics Population, conditions, complexity Access patterns seen 	Patients can self-refer to various specialties at the facility. Most chiropractic referrals are sent from primary care, HEADACHE NEUROLOGY and pain management. Cases span a range of complexity, and HEADACHE and post-operative spine patients are common. Most chiropractic cases are covered by health insurance. The nuances of chiropractic billing and variation in third party reimbursement practices present challenges to efficiency. Most of the other integrative services at the facility are cash payment, which presents its own challenges since this is not typical for a hospital.	Many patients do say, "I wouldn't normally have presented to the corner chiropractic clinic but because you're at the Brigham, Brigham has a great reputation." I think patients come in with an elevated expectation of our background, of our abilities, if they have a Brigham primary care doctor sending them to a chiropractor. (Provider)



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Services provided	Full scope diagnosis and management of musculoskeletal and neuromuscular conditions.
Diagnostic, therapeutic	
	This includes manual joint manipulation and
	mobilization, soft tissue therapies, and active care
	approaches such as exercise and ergonomics.



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 Case management CPGs/care pathways used Outcome assessment/reporting Communication/collaboration with other providers 	Bi-directional referral occurs with other departments. Generally, providers report informal processes of face-to-face communication for collaborative case management that they feel are very effective. Primary care providers engage in shared decision making with patients regarding available treatment options, and chiropractic is often the first choice for back pain cases	The massage is only going to go so far if the vertebrae are completely locked. If there's a degree of complexity where I would like more feedback, then I always refer to a chiropractic physician. (Provider)
	Providers also communicate through the EMR as needed, and through formal team meetings twice monthly. Generally, clinicians agree that time constraints pose a barrier to between-provider communication. Yet they also feel that this barrier is overcome through collegial cooperation, and referring providers find communication with the chiropractors to be appropriate and helpful.	One thing that's really great about being part of this clinic is the ability to integrate care and to work with my chiropractor colleagues, which I now have. I see them at the team meetings, really thoughtful, smart people who are looking holistically and physiologically at why people are getting headaches. My impression for all the practitioners within this group is that they're trying to provide really good medical care and in an integrated way and in a safe way in looking for evidence to do what they do. (Provider)



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Impacts/Outcomes	Clinic function Use, utilization, performance benchmarks 	Much administrative and clinical data are available but not routinely analyzed or disseminated. Administrators are considering various processes for increased formal reporting. The chiropractic clinic recently transitioned from part-time and per- diem chiropractors to its first full-time employee; consequently this current year will help develop provider and clinic benchmarks	I have a feeling if all that pain patients came through here, we would do it cheaper. I think we'd avoid half of the [more expensive treatments]. We could actually cut cost. If there's any capitated care, we'll win. (Staff)
	Patient status Outcomes, satisfaction 	All stakeholders expressed perceptions that clinical outcomes are very favorable, and that patient satisfaction is high.	I always hear good things about chiropracticI think [medical providers] have enough friends, or knowledge, or patients that say "that's the best, that works, I feel I can walk," after whatever manipulation they have received. (Staff)



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 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	Physicians reported value in learning more about chiropractic care through their interactions and observations in the chiropractic clinic. Positive change in perception was noted by several physicians who, prior to working at this facility, previously had unfavorable experiences with chiropractors in the community.	If [patients] are getting relief of pain [from chiropractic] they're using less analgesics. No question about it. (Provider)
	Interdisciplinary activities both formal presentations and ad hoc encounters between the chiropractors and other providers at the facility – are valued. However formal interprofessional education faces obstacles since information about chiropractic is typically not covered in medical school.	I had a personal experienceI had some acute radicular lower back pain I was hobbling around for a while and I said, well, I think I'll go downstairs and see what a chiropractor does. What impressed me was that just after some spinal manipulation she relieved my pain and I was like, wow, that was pretty good. (Provider)



Cisco LifeConnections Health Center - San Jose, CA

Corporate Health Center

Facility Background/Data	Year established/historical background	Cisco Systems is a NASDAQ publicly traded multi-national technology corporation with its headquarters located in San Jose, California founded in 1984.	
	Ownership/type/focus	LifeConnections Health Center (LCHC) is an onsite corporate medical center providing integrated health care exclusively to Cisco employees and their dependents. The facility defines itself as a patient-centered medical home, integrating advanced primary care with alternative medicine. Cisco has three onsite clinic locations, including San Jose, California; Research Triangle Park, North Carolina; and Bangalore, India. The LCHC at San Jose is currently operated by Stanford Health Care, a system of the Stanford University School of Medicine.	
	 LCHC San Jose Location Geographic region, urban/rural Metro area population 	LCHC at San Jose (population 945,942), is located in part of the greater San Francisco Bay Area (population of 8.37 million). The facility is located on the Cisco headquarter campus, sharing a building with a contemporary corporate fitness center, child care center, and cafe.	
	Size Beds/catchment/enrollees Departments/employees	Chiropractic is part of the physical	



		resistance bands, and private and secure access to the 48,000 sq. ft fitness center to allow for more sophisticated training modalities with patients.	
		The multi-disciplinary clinical staff includes seven primary care physicians, two pharmacists, two chiropractors, two physical therapists, one acupuncturist, two optometrists, one dentist, one health coach and one EAP counselor.	
	Revenue sources (private, Medicare, Medicaid)	The LCHC is a cost plus model. All Cisco employee and their families who are eligible for benefits may use the health center, regardless of their medical plan selection. Revenue sources include patient copay and coinsurance, however, the main revenue source is cost avoidance and cost reduction.	
Implementation of chiropractic services	Impetus/climate/background	Cisco interviewed staff and conducted employee focus groups as to what services they wanted in their new clinic. Chiropractic was highly requested. As the company is self-insured, financial administration wasn't an issue. There were no orthopedists on staff.The DCs became part of the medical group and diagnostic team.	
	Planning process/timeline	By recommendation of Cisco, the lead DC was recruited and hired by the operating partner. Implementation planning for chiropractic care included developing integrated workflows and EMR templates, and creating an integrated patient- centered model. The DC was not part of	"The lead chiropractor managed the physical medicine department. His key focus was clinical integration. He helped the multi-disciplinary team and the physicians develop the



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		the development group, but helped to shape the processes.	integrated model of care coordination. He designed
		Over a period of time and maturation of the model, the lead chiropractor took over management of CAM areas, reporting to the Medical Director.	an integrated program whereby, based on the diagnostics of the patient, they would see a combination of modalities,
		Cisco is a corporate partner of Stanford Health Care, who took over operation of the Health Center from Premise Health in October 2015. Since then, the lead DC does not have management duties.	including acupuncture, physical therapy and health coaching". (Integration Health Manager)
	Year clinical services established	November, 2008	
Chiropractic Clinic Structures	 Administration Department/service line Performance measures/benchmarks 	Chiropractic is part of the Physical medicine/chiropractic department in the LifeConnections Health Center.	
	Location/space/equipment	The chiropractic services have two treatment/exam rooms available for patient care.	
		Chiropractors and Physical Therapists share the same space in the clinic located by a functional gym area used by both disciplines, containing therapy balls, free weights, balance boards, resistance bands and access to a full gym through a secure and private door.	
	 Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities 	LifeConnections Health Center has 2 chiropractors on staff, one full-time and one part-time employee.	"It is critical to have the right talent and right person who is willing to work with the physicians, who's willing to



 Professional attributes Interprofessional attributes 		work with the PT and not be very narrow-minded in, in that chiropractic is the only way. And same with the physicians (who work here). Now, were all the
		physicians bought into chiropractic medicine from day one? Not necessarily. The key to integration is people relations. It takes
		getting to know each other, getting to know how they practice medicine, getting to know and trust the practitioners. So, when the referral transition begins, it's
		really a trust. I trust you're going to take care of my patient, so I'm going to refer. Without that trust, the chiropractors are not going to get any referrals from
		anybody and vice versa." {Integration Health Manager}
Support staff Discipline/number 	There are no support staff dedicated specifically to the chiropractic clinic. LifeConnections Health Center has a centralized patient check-in/waiting area,	
	which services all of the departments and providers in the center.	



		The LifeConnections Health Center has 11 medical assistants, and 4 RNs and 1 LVN on staff.	
	 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	All patients at the LifeConnections Health Center are Cisco employees, spouses, or dependents. Patients can self-refer to the chiropractor or be referred by another provider.	"They [patients] have excellent access. The main aspect that that limits their access is awareness - do they know the clinic has chiropractic team onsite? That's a marketing issue.
		same day or next day of referral or scheduling.	And some days we're too busy and it's hard to get in, but we really work hard to provide same day or next day access. There are 14000 Cisco employees, plus all of their dependents, there are like 32,000, we really focus on being available to fit people in, so our schedule is a lot of times the issue." {Chiropractor A}
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity Access patterns seen 	The clinic sees patients with a variety of musculoskeletal conditions, generally of low to moderate complexity such as postural strain and deconditioning. It is a very diverse corporate population with many international patients	
		Patients can access the chiropractic clinic directly, or can be referred from other providers. At the point of service a referring provider often can have patients	


		scheduled directly into the chiropractic clinic.	
	Services providedDiagnostic, therapeutic	The clinic provides full scope diagnosis and management of musculoskeletal and neuromuscular conditions. Treatment options include manual manipulation, mobilization, soft tissue treatment, and active care such as rehabilitative exercise and ergonomic instruction	
	 Case management CPGs/care pathways used Outcome assessment/reporting Communication/collaboration with other providers 	Patient reported pain and functional outcomes are assessed as part of each treatment plan. Providers communicate through formal care team meetings, informal discussions, and observational rounds. Co-location of chiropractic and physical therapy providers facilitates communication and collaboration.	
Impacts/Outcomes	 Clinic function Use, utilization, performance benchmarks 	The clinic meets its established performance-based metrics including access, clinical outcomes and patient satisfaction.	
	Patient statusOutcomes, satisfaction	The chiropractic clinic consistently receives high patient satisfaction ratings.	
	 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	Staff and providers indicate the value of the multi-professional clinic including chiropractic care for the patients. The facility promotes cooperation and understanding among the providers by having the providers shadow each other,	"I think it's very patient centered, I think they provide a really good customer service; I think they're really easy for our patients to access, and I think they're very easy for us physicians to



seeing how each unique provider type	communicate with."
cares for patients.	(Primary care physician)
	"I think everybody
	understanding what the
	other person does, so it's
	part of our on-boarding
	having the different
	modalities, spending time
	with another, so the
	acupuncturist spends time
	with the chiropractor, the
	chiropractor spent time with
	the acupuncturists that
	understanding helps them
	know better how to refer to
	each other and how to find
	the best treatment for the
	patient, whether it's
	chiropractor or
	-
	acupuncture." (Director of
	clinical operations}



Community Health Care, Inc. Federally-Qualified Health Center

Facility Background/ Data	Year established/historical background	CHC was founded in 1975 to provide primary and dental care. "The mission of Community Health Care, Inc. is to provide the communities we serve with excellence in patient-centered medical, dental and behavioral health care that is compassionate, affordable and accessible."	http://www.chcqca.org/
	Ownership/type/focus	Operates under the recognition of being a Patient-Centered Medical Home (PCMH) model of care. A 501(c)3 nonprofit organization	"They were continuing to work with community things, to try to get better [programs] for our patients. Whether it be labs or whether it be chiropractic, or whether it be nursing. That was my assumptionto get patients to get treated better." (Provider)
	Location Geographic region, urban/rural Metro area population 	CHC runs 9 clinics located in the greater Quad City Iowa and Illinois region (population 417,741) comprised of Davenport IA, Clinton IA, Rock Island IL, and Moline IL and East Moline IL as well as suburban communities surrounding the area.	
	Leadership structure/composition Size • Beds/catchment/enrollees Departments/employees	Over 35,000 patients visit the CHC per year, with around 100,000 provider visits. CHC offers Primary care, obstetrics, pediatric care, dentistry, pharmacology and lab work.	
	Revenue sources (private, Medicare, Medicaid)	Medicare and Medicaid patients, veterans, homeless persons, and private pay patients are all seen at CHC. Fee scales are adjusted for uninsured or underinsured individuals.	



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		Community/ state /federal grants as well as private and corporate donations are accepted to subsidize. Billing of chiropractic services is handled through Palmer's billing department.	
		Radiographs are taken at Palmer College of Chiropractic.	
	Notable current initiatives/changes CAM, spine, pain/opiate Patient experience		There are limitations when people have such chronic diseases. They need medical intervention, and it's just so much easier to work together instead of in separate silos. Everybody down there is trying to do the right thing for the patient. They're not worried about "my drug is the best", or "my manipulation's the best". It's what's best for them in the long run? (Provider)
Implementati on of chiropractic services	Impetus/climate/background	The first chiropractor was brought in through a 1 year HRSA-funded research study, part- time, and then kept on afterwards. A new facility had just opened with available space, so they asked him to start seeing patient referrals. The second chiropractor expanded into a different facility, i.e., 2 facilities of the 8 in the Quad Cities.	The medical staff were "open and inviting" to the idea of a chiropractor, but "didn't know where chiropractic fit in" [within the services provided] (Provider) Hallalujah. Another service to provide to our patients. We work with a lot of patients with chronic pain, so this was just another service that we could help provide to our patient population to help them manage those conditions. I didn't see any kind of pushback or any kind of negativity towards chiropractic being a part of what we provide as services to our patient population. (Provider)



	Planning process/timeline	 The providers identified chiropractic as a beneficial service to patients at the clinic, so Palmer was contacted to incorporate chiropractic services into the clinic. Initially, all CHC patients were self-referred and the chiropractic patients are referred from other CHC providers. Now, to remove a barrier, DCs see both provider-referred and self-referred. The lead chiropractor and supervisor (Director of Community Clinics) are Palmer College of Chiropractic employees. Financial arrangements for chiropractic clinic is based on Medicare arrangements and low-income status of many patients. 	The planning process was more on our part than on CHC's part, because we wanted to provide an avenue to provide an experience for interns that wasn't available in the other clinics. Consequently, it was our decision to make all of the patients that we saw, as referred patients from within CHCAll the other [Palmer] clinic patients are self- referred, so this would be a different type of environment. We could have done it either way, and we'd elected to do it that way just because we wanted a different experience for students. (Provider)
	Year clinical services established	2011	
Chiropractic Clinic Structures	Administration Department/service line Performance measures/benchmarks Location/space/equipment	Chiropractic is part of the adult health clinic (2 nd floor at CHC-Davenport or in the Rock Island Clinic) 2 rooms for chiropractic care, plus a shared office space Flexion-distraction treatment table	
		Hi-lo treatment table Electronic health record	



Chiroprostore	Radiology is completed off-site at the Palmer Academic Health Center (8 blocks away)	
Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities Professional attributes Interprofessional attributes 	Two DCs, covering 2 clinics, one in Davenport and one in Rock Island Varied morning and evening hours, Monday – Friday.	
Support staff Discipline/number 	As an organization (9 clinics), we are sitting on about 296 employees right now.	Another aspect of it in terms of referrals there is quite a bit of turnover of professional staff, so we have to retrain people on how to work with us, periodically. (Provider)
 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	Visit duration varies (15 to 30 minutes), as does the course of care (3 to 4 visits) Referral from other providers (MD, DO, PA, NP), as well as self-referral for patients who have previously seen DC Attempt to work patient into schedule for acute conditions, or if an opening – otherwise can schedule within weeks.	I think it's pretty darn easy and [the chiropractor] is really good about saying "I don't have any spots open today but you can double book me." She's very good about that. We do schedule them at the time of their visit for their next onethey don't have to make any extra calls or to go through our service to schedule. (Staff)
Relevant partnershipsAcademic, research	Internship program where chiropractic students to observe chiropractic care provided at CHC, and allows observation of medical providers.	Setting up proximity was really key for the interactions. When students come down for their two week rotations, they'll see, not only the chiropractor working,



		Pain Clinic – Pain Centers of Iowa – Weekly on-site pain clinic Palmer Academic Health Center – radiology consults	but they'll also shadow the other providers. (Provider)
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity Access patterns seen 	 Complex patient base with many co-morbid conditions. Low-health literacy patient base (5th grade reading level) Low-income patients with no insurance or state insurance Chiropractic care offered to staff, as an employment perk. Patient accessibility is constantly monitored by the chiropractors and schedules are (often) adjusted for ease of patient access. 	
	Services provided Diagnostic, therapeutic 	Physical exam Orthopedic evaluation X-ray reading Passive modalities (mechanical massage, biofreeze) Active care (exercise) 'Palmer package' manual therapy	Mostly the high velocity, low amplitude, for a lot of patients. In terms of techniques we use: Diversified, Gonstead, Activator. We use Flexion Distraction on a regular basis, soft tissue muscle work on a regular basis Sometimes we have an impulse adjustor. We have blocks, just whatever the patient needs. (Provider)
	Case management CPGs/care pathways used 	There are no specific care pathways established at the clinic. If a patient	



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	 Outcome assessment/reporting Communication/collaboration with other providers 	 presents with a condition that is something that the provider feels would be best addressed by another provider, they will refer the patient (usually the same day). All providers record patient notes in the EHR system. Provider communication occurs in the EHR system, direct contact, or over the phone. 	
Impacts, omes	utc Clinic function • Use, utilization, performance benchmarks	Patient use, with the percent of patients keeping their appointments, and patient satisfaction are tracked at the institutional level.	Knowing the complexity of what we do for quality management, as a federal qualified healthcare center, we have a broad range of quality metrics that we look at. We are probably hitting everything that we needWe get depression screens, we look at blood pressure control, we look at diabetes control, tobacco cessation, and that's all going to be collected on those patients that are seeing the chiropractor right along with the medical providers. (Staff)
	 Patient status Outcomes, satisfaction 	 Patient outcomes measured include: Visual analog scale Headache disability index Neck index Bournemouth Functional (FRI?) Patient subjective and provider objective ratings Patient compliance for return visits is fairly low. Patient satisfaction has been collected annually, they are ready to implement 'real 	I try to re-evaluate on a short term basisand determine additional need for treatment, or referral back to the provider based upon the progress or lack of. (Provider) It helped tremendously. Before I went to a chiropractor, he would actually pop everything in my body, my entire body, and I like it that she just pinpoints what my problem is instead of adjusting everything that doesn't need to be done.



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	time' feedback. They will be handing patients Ipads in the waiting room following their appointment to capture satisfaction. Currently satisfaction scores are high from chiropractic patients at CHC. This will give the clinic more 'actionable information.'	I like that she just goes to what needs to be done. (Patient) If I didn't believe in chiropractic, I would be going to my other doctor and saying, "Listen, I've got headaches and my neck hurts. Is there some kind of pain pill you could prescribe to me?" But being as educated about chiropractic as I am, I realize that when you have a skeletal malfunction you need to see a chiropractor. (Patient)
System status • Facility actual (or impression of) value • Non-DC staff impression • DC staff impression	 Facility and staff perceive the chiropractic clinic as adding value to the health care model offered to the patients at CHC. Value is seen as coming from Ease of access for the patients to chiropractic care Care as part of the employee benefit package An option that providers have for referring chronic pain patients 	Some (patients) have addiction problems, they have medication management problems. So it was very nice to hear that something like chiropractic medicine or a referral to physical therapy or something like that was an option. (Provider) I've heard nothing but good about chiropractic medicine at CHC, on the second floor. A lot of the patients, a lot of the providers refer, and a lot of the providers and staff actually see chiropractors as well. (Provider) They provide good care that's a necessary service for our patient population. (Staff)



Cancer Treatment Centers of America - Southeastern Regional Medical Center Cancer Hospital Network

Facility Background/ Data	Year established/historical background	Cancer Treatment Centers of America (CTCA) was founded in 1988 by Richard J Stephenson, after his mother, who had cancer, died. On June 18, 2009, CTCA announced Newnan, Georgia, as the site of its fifth cancer treatment facility. CTCA at Southeastern Regional Medical Center (SERMC) opened on August 15, 2012, CTCA at Southeastern Regional Medical Center, providing integrative and personalized cancer care.	
	Ownership/type/focus	Cancer Treatment Centers of America (CTCA), headquartered in Boca Raton, Florida, is a national, for-profit network of five hospitals that serves cancer patients throughout the United States. CTCA follows an integrative approach to cancer care that uses conventional approaches like surgery, chemotherapy, radiation and immunotherapy to treat the cancer, while also offering integrative therapies to help manage side effects. CTCA's mission is to be "the home of integrative and compassionate cancer care. We never stop searching for and providing powerful and innovative therapies to heal the whole person, improve quality of life and restore hope."	
	 Location Geographic region, urban/rural Metro area population 	SERMC is located in Newnan, GA (population 41,109), which lies 38 miles southwest of Atlanta, GA (population 463,878). Other locations include the Midwestern Regional Medical Center located in Zion, IL;	



	Southwestern Regional Medical Center in Tulsa, OK; Eastern Regional Medical Center in Philadelphia, PA; and Western Regional Medical Center in Goodyear, AZ.	
Leadership structure/composition	CTCA is led by Richard J Stephenson, Founder and Chairman of the Board. Anne Meisner is President and CEO of SERMC.	
Size Beds/catchment/enrollees Departments/employees 	The Newnan facility is approximately 455,000 square feet including 50 staffed beds and over 200 physicians	
	Departments: Breast Center for Advanced Oncology Clinical Trials Critical Care Gastroenterology Genetics Infusion Center Interventional Pulmonology Interventional Radiology Laboratory Medicine Lung Center for Advanced Oncology Medical Oncology Nursing Radiation Oncology Radiology & Imaging Skin, Wound and Ostomy Care Surgical Oncology	
Revenue sources (private, Medicare, Medicaid)	The facility accepts a mixture of cases including private insurance, self-payment, Medicare and Medicaid.	
 Notable current initiatives/changes CAM, spine, pain/opiate Patient experience 	CTCA is differentiated by its integration of conventional and supportive therapies such as acupuncture, chiropractic care, mind- body medicine, naturopathic medicine, nutrition therapy, oncology rehabilitation, pain management, and spiritual support.	



Implementati on of chiropractic services	Impetus/climate/background	The founder/owner strongly supports integrative therapies. This was the fifth hospital in the system and the chiropractic division was already part of the system, with full-time DCs at all of the hospitals.	Integrative and chiropractic treatment is a hallmark of our programs everywhere (Staff)
	Planning process/timeline	Inclusion of chiropractic is part of CTCA's model, and they just needed to find the right provider to grow the program. The administration worked closely with CTCA's National Director of Chiropractic Services to establish this new clinic.	As chiropractic was part of the corporate model, they still needed to "identify the right provider here, right training, right credentials, right focus, right demeanor all of the things that we look for." (Staff)
			"At the start, we needed to determine what types of services a chiropractor is qualified to provide, what are the education requirements, and all of the basic types of information about what chiropractic does, who are appropriate patients and what are the contraindications. I was involved in creating all of that from the beginning." (Provider)
	Year clinical services established	CTCA implemented chiropractic services at its Midwestern Regional Medical Center (Zion, IL) in 2002. Chiropractic services were included at SERMC since the facility's opening in 2012.	
Chiropractic Clinic Structures	Administration Department/service line Performance measures/benchmarks 	The chiropractors currently work in the chiropractic and acupuncture department. The chiropractors currently report to senor administration.	
	Location/space/equipment	The chiropractic and acupuncture department consists of a reception area and three examination/treatment rooms. Rooms are furnished with state of the art tables and	



		other necessary equipment for the provision of clinical care.	
	Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities Professional attributes Interprofessional attributes 	The chiropractic clinic sees patients 35 hours per week. The chiropractors selected to work in this setting need to be knowledgeable about medical services offered in this population, and to be able to communicate in a hospital setting as well as work closely with other health care providers.	"They (the chiropractors) had to understand that chiropractic doesn't cure everything and that they needed to know how to be knowledgeable enough about the medical services to be able to speak articulately in the process and to be cooperative with the team to set appropriate roles." (Provider)
	Support staff Discipline/number 	One administrative assistant handles scheduling for the acupuncture and chiropractic department.	
	 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	The out-patient population can self-refer to the chiropractor. If a patient is in-patient at the hospital a referral is needed. The chiropractors' schedules include time allocated to bedside visits.	
	Relevant partnerships Academic, research 	Over 40 active trials are currently being conducted at the hospital. There are initiatives in place to conduct more integrative studies in this setting.	
		The facility is affiliated with multiple academic institutions to provide training for healthcare providers including Emory University (nursing), University of Georgia (pharmacy), Georgia State University (physical therapy, nutrition), University of West Georgia (nursing) and others.	
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity 	Patients can access the chiropractic clinic directly, yet most are referred from other providers at the facility. By its nature CTCA	If patients truly have a musculoskeletal diagnosis, not a tumor-related diagnosis, that's easy; I would like to think 100% of my



Access patterns seen	serves a highly complex patient population; with some early stage cancer cases, some later stages having gone through multiple procedures. In many instances, managing the side effects of a given cancer therapy is a key goal for the chiropractic clinic.	patients that have that end up seeing a chiropractor. The thing though, is that those of us who actually understand chiropractic care and manual medicine, understand that there are visceral treatmentsas well as somatovisceral reflexes. (Provider)
Services providedDiagnostic, therapeutic	The clinic provides full scope diagnosis and management of musculoskeletal and neuromuscular conditions. This includes manual and instrument joint manipulation, soft tissue therapies, and active care approaches such as exercise and ergonomics.	
 Case management CPGs/care pathways used Outcome assessment/reporting Communication/collaboration with other providers 	Management of the cases seen here is beyond the scope of most widely-used care pathways and clinical practice guidelines for typical musculoskeletal pain conditions. Treatment plans must be tailored based on expertise of the chiropractors and other collaborating clinicians. Providers engage in informal face-to-face communication as needed, as well as structured team meetings. Providers also use the EMR for communication and to facilitate coordination of care. As a destination hospital, treatment plans are often tailored to meet the patients' timeframe. If a patient chooses to follow up with a local community chiropractor when returning home, the CTCA chiropractic clinic communicates relevant case management information to the hometown provider	Patients going through cancer treatment tend to have fatigue and a variety of other types of consequences from the treatment itselfpatients receiving radiation often experience fibrous changes in the skeletal muscle and then they can't tolerate positioning for subsequent radiation treatments. So we end up treating those patients in order to facilitate their ability to actually have the radiation procedure in that case. (Provider)



Impacts/Outc omes	Clinic function Use, utilization, performance benchmarks 	Use of chiropractic services has been steadily increasing. Much utilization and outcomes data exist but are not routinely analyzed and disseminated. The facility recently unveiled a five-year plan to implement ongoing assessment of administrative data.	
	 • Outcomes, satisfaction 	All stakeholders expressed perceptions that clinical outcomes are very favorable, and that patient satisfaction is high.	I had never seen a chiropractor before. I had heard a lot of not such good things. But fortunately that turned out to be all false. I am very satisfied with the care I received here. As a matter of fact, for a chiropractor in my particular doctor's position, to be willing to come in on a Saturday to treat a patient because I'm at the end of my treatment, that's rare. Doctors don't do that often. (Patient)
	 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	The chiropractic service seems to be highly valued by facility leadership and referring clinicians. Medical physicians reported very favorable perceptions of care quality, as well as the clinical competence and collaborative behaviors of the chiropractors. Currently no specific fiscal benchmarks for chiropractic clinic performance have been established.	One of the things that I'm most delighted by is working with true professionals here who understand the differences between how they manipulate or treat one skeleton versus another. And how they treat someone who does have metastatic cancer versus another. I've been very, very happy with the [chiropractic] team that I have. (Provider) If I think a singular treatment or an adjustment could actually change the course of a patient's well being, I'll call the chiropractor who's here and say "can you



	please work with this patient?" and I've never had them not do it. The [chiropractors] working here are very patient centric, and understand that if a provider is actually calling, that they're amenable. Even though they literally don't have [a moment's rest] all day.
	(Provider)

Notes: Population data from 2015 US Census Bureau estimate



University of South Florida Health – USF Morsani College of Medicine Orthopedic and Sports Medicine Clinic

Facility Background/ Data	Year established/historical background	 USF Health is the partnership of the University of South Florida Morsani College of Medicine, the College of Nursing, the College of Public Health, the College of Pharmacy, the School of Biomedical Sciences and the School of Physical Therapy and Rehabilitation Sciences; and the Doctors of USF Health. USF Health is an integral part of the University of South Florida, a high-impact, global research university. USF was founded in 1956 and has 3 campuses – Tampa, St. Petersburg, and Sarasoata-Manatee The University of South Florida has transformed a community medical school, established by the Florida Legislature in 1965, into a major academic medical center known statewide and nationally for its innovative curriculum with an emphasis on 	
	Ownership/type/focus	 improving health through interprofessional education, research and clinical activities. USF Health is part of the USF system, a large (>48,000 students), public 4-year university offering undergraduate, graduate, specialist and doctoral level degrees. The mission of the Morsani College of Medicine at the University of South Florida is to provide for the education of students and professionals of the health and biomedical sciences through the creation of a scholarly environment that fosters excellence in the lifelong goals of education, research activity and compassionate patient care. 	



	Location	USF Health's Morisani Center is located in	¥
	 Geographic region, urban/rural Metro area population 	Tampa, FL (metropolitan area population 2,824,724).	
	Leadership structure/composition	Judy L. Genshaft, PhD is the President of University of South Florida. Charles J. Lockwood, MD, MHCM is Senior Vice President, USF Health and Dean of USF Health Morsani College of Medicine	
	Size Beds/catchment/enrollees Departments/employees 	USF operates 8 sites of care staffed by over 750 health care providers, including over 450 MD/DO/DC physicians. The department of Orthopaedics and Sports Medicine includes five orthopaedic surgeons, one primary care sports medicine physician, one chiropractor and one physician assistant.	
	Revenue sources (private, Medicare, Medicaid)	The facility accepts a mixture of private insurance, Medicare, and self-payment cases.	
	 Notable current initiatives/changes CAM, spine, pain/opiate Patient experience 		
Implementati on of chiropractic services	Impetus/climate/background	The DC had been associated with the university for many years as a volunteer physician for athletes and then part-time as adjunct faculty. One of the reasons the DC was officially brought on board to expand access to electronic health records.	"We had buy in in part because of some legislative support for this and dare I say leverage with the senior vice president and the president who wanted some things. And there's high-ranking chiropractors at the state legislative body at the time. So it was good timing." (Staff)
	Planning process/timeline	The DC's long-term association with the university provided exposure to chiropractic to athletes and orthopedic physicians. The Orthopedic Department asked the chiropractor to come on board full-time. There were a lot of administrative hurdles, particularly for a new program, with planning	"the chiropractic clinic here has been evolving for at least 20 years. At least chiropractic presence; it wasn't called a chiropractic clinic at that time. It started with one practitioner who got her foot in the door and provided great care for patients, was persistent and took bumps and bruises for



		occurred at the upper levels of the university to determine how to integrate the clinic, and especially how to finance it.	the profession, resulting in where we are now." (Staff)
	Year clinical services established	On-site clinical services began in 2015. For 9 years prior, billing had been done through the chiropractor's private practice.	
Chiropractic Clinic Structures	Administration Department/service line Performance measures/benchmarks 	The chiropractor was located in the Orthopedic department. USF recently restructured, chiropractic is now located in the Neurosurgery department.	
	Location/space/equipment	Located on the third floor of the University of South Florida campus health clinic.	
	Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities 	1 Full-time chiropractor 2-3 patient exam/treatment rooms are available	
	 Professional attributes Interprofessional attributes 	10-20 new patient visits per week and 80 Follow-up patients per week	
	Support staff Discipline/number 	1 clinical coordinator 3 support staff with some duties working with the chiropractor	
	Patient access Referral, self-referral Appointment availability/wait Appointment length, number 	Patients access appointments with the chiropractor through provider referral as well as self-referral mechanisms.	
	per week	30 minute appointments scheduled for new patients.15 minute appointments scheduled for follow-up patients.	
	Relevant partnershipsAcademic, research	The clinic is located on the University of South Florida campus.	
		The chiropractor also works at the university health center and at the university sports center with USF sports teams.	
	Patient characteristics		



Chiropractic Clinic Processes	 Population, conditions, complexity Access patterns seen 	The clinic sees patients with a variety of musculoskeletal conditions, sports injuries, headaches, and post-concussion symptoms Referrals originate from primary care, neurological surgery, and orthopedic surgery. When requested by referring physicians the clinic provides expedited access for urgent cases, often on the same day. There have been challenges with billing and reimbursement for chiropractic services compared with surgical services	
	Services provided		
	Diagnostic, therapeutic		
	Case management	Good communication/collaboration with	
	 CPGs/care pathways used Outcome assessment/reporting Communication/collaboration with other providers 	 many physicians is a key to team based care. However the large size of institution, with only one DC on staff poses a challenge in reaching all physicians. Since this is a teaching facility, some attendings commonly refer to and collaborate with the chiropractor, thus their residents gain experience with chiropractic care. The facility includes DOs who perform some spinal manipulation, yet also refer some cases to the chiropractor for management. There is also strong collaborative case 	[The PT department] is a wonderful program. They do some mobilization, but they've sent me a lot of people whom they feel would benefit from chiropractic care, and I send them, obviously, the people who I think they've got the machinery to do itthat's very good care. (Provider)
		management between chiropractic and PT	
	Olinia function	providers.	
Impacts/Outc omes	 Clinic function Use, utilization, performance benchmarks 	From a fiscal perspective, the clinic is meeting its production and collections targets, and is perceived to be budget neutral or slightly positive. Across stakeholders there is common perception	I know that [the chiropractic clinic] doesn't cost us much and doesn't make us much. You can't really compare an ancillary service of chiropractic medicine to surgery; any surgical specialty. They make a lot of



	that the chiropractic clinic adds value for the facility's patients. The facility initially encountered challenges with billing and reimbursement for chiropractic services. This was partly due to the novelty of implementing the business practices associated with this new service, and partly due to the wide variation in chiropractic reimbursement among payers.	moneyand it's much easier to bill for orthopedic services than it is for chiropractic. (Staff)
 Outcomes, satisfaction 	Patients expressed high satisfaction with the quality and outcomes of chiropractic care. Patients greatly appreciated that the chiropractor communicated and collaborated with other providers involved in their case management. Patients expressed perceptions that all physicians at the facility are high-quality, and that this favorably influences their perception of the chiropractor,	As far as I'm concerned, I feel that chiropractic is what keeps me goingI really feel these doctors work more closely with one another. There's not that I don't know, would you call it jealousy maybe between how big your {private} practice is and this kind of thing. All these people are teaching in some way. I feel that the doctors here are on the leading edge of the newest and best methods to do things. (Patient)
 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	Value of medical residents and fellows rotating through chiropractic clinic	I think it is beneficial. It brings in good patients. [The chiropractor] gets referrals from us, [and] gives referrals to us. So it is a good holistic approach to the care of the patient. (Provider)



Lehigh Valley Health Network – Cedar Crest Ambulatory Care Center

Facility Background/ Data	Year established/historical background	Lehigh Valley Hospital (LVH) is part of the Lehigh Valley Health Network (LVHN), a group of Pennsylvania hospitals with its origins dating back to the Allentown Hospital, which opened in 1899.	
	Ownership/type/focus	LVHN is a non-profit organization whose mission states, "We heal, comfort and care for the people of our community by providing advanced and compassionate health care of superior quality and value supported by education and clinical research."	
	Location Geographic region, urban/rural Metro area population 	LVHN-Cedar Crest campus is located in Allentown, PA. Allentown is a metropolitan city (pop. 118,032) combined with Allentown-Bethlehem-Easton known as Lehigh Valley (combined pop. 821,623).	
	Leadership structure/composition Size Beds/catchment/enro llees Departments/employ ees	LVHN is composed of 3 full-service hospitals with ERs, a children's hospital, 3 community hospitals and 1 specialty hospital, numerous community clinics, labs and community health centers. LVHN includes a total of 1838 licensed acute beds, over 2800 physicians and Advanced Practice Clinicians providing care in 95 clinical specialties.	
	Revenue sources (private, Medicare, Medicaid)	LVHN accepts a mixture of cases including private insurance, Medicare, and Medicaid, as well as self-payment.	



	Notable current initiatives/changes CAM, spine, pain/opiate Patient experience 	LVHN is a regional clinical campus of University of South Florida's College of Medicine and member of the Council of Teaching Hospitals.	
Implementati on of chiropractic services	Impetus/climate/background	 The Division Chief of Neurological Surgery felt that the system could use additional resources and more cohesive care, including the ability to capture more patients by developing a comprehensive, non-operative program. Prior to the chiropractic practice acquisition, there may have been mixed reviews, but there was very strong backing from many of the hospital-affiliated orthopedic, pain management, and physical medicine, and a significant enough utilization by at least a quarter of primary practitioners who would regularly utilize chiropractic services for patients' skeletal problems. The lead chiropractor had an excellent reputation and strong working relationship with many of the physicians within the network. 	"the acceptance of chiropractic in the Lehigh Valley here is probably as good as it getsover the years, were able to establish an element of trust among a large percentage of medical providers in the community, both spine care specialists and primary care providers". (Provider)
	Planning process/timeline	The strategic decisions and formal planning were made at the executive team level while formalizing the Neurosciences service line. Lehigh Valley wanted to develop a multidisciplinary spine center. The integration process began about 10 years ago through the Division Chief of Spinal Surgery's initiative, and working with	



	the Chief of Neurosurgery and the Head of Pain Management, who were strong advocates for the lead DC. For the first year, there were monthly meetings, which	
	included consultants on the team. The Division Chief eventually became less involved and the hospital network took over and slowly went ahead with the planning. The lead DC was part of the team to create	
	a multi-specialty spine program. The facility purchased a well-established private practice with a lead DC who was widely recognized for strong leadership. The practice had transitioned to the location several years before becoming part of the Lehigh Valley Network.	
	The chiropractors were regarded as peers of the medical osteopathic physicians in network, although Pennsylvania state regulations did not define DCs as physicians, but as advanced practice clinicians. The hospital was able to develop contracts with the DCs based on the role played in the network	
	In 2012, the lead DC let his private practice staff know of the intentions to join the Lehigh Valley Health Network. The staff adapted well to orientation and new training into the health systems.	
Year clinical services established	The private practice moved to its current location in 2006, primarily to be part of the Spine Program. The practice was acquired	



		by LVHN in 2012, growing from a two- provider practice to five.	
Chiropractic Clinic Structures	Administration Department/service line Performance measures/benchmarks 	The chiropractic offices are a division of the Department of Medicine. The chair of the department of medicine supervises the chiropractic medicine division.	
	Location/space/equipment	Chiropractic clinics are located at 2 different main hospital campuses and one community hospital. The larger of the 2 locations has 7 exam/treatment rooms. The smaller office houses 2 exam/treatment rooms.	
	Chiropractors Number/FTE/appointment Privileges/services Non-clinical activities Professional attributes Interprofessional attributes 	 3 chiropractors are full-time at the main hospital campus, and 1at the two other (newer) locations. The larger clinic averages around 35 new patient consults in a week with 350-400 follow-up patient visits. The smaller clinics see around 15 new patient consults a week with 60-70 follow-up patient consults. Both of the more recently hired chiropractors have trained in medical settings before being hired at Lehigh Valley. 	(I like being a part of) integrated care. In a way, it's good to know that you're taking care of a patient and at the same time, consulting with their primary care doctor it's an overall system. I think that's the main thing that brought me into it (integrated care) and just knowing that again, (we are) just providing more. (Provider)
	Support staff • Discipline/number	7 Medical Assistants, Office Manager, Office Coordinator, and 1 Insurance specialist work in the chiropractic offices.	
	 Patient access Referral, self-referral Appointment availability/wait Appointment length, number per week 	Patients can self-refer or be referred by another provider through the network wide EHR system. Patient appointment number and course of care are determined by the chiropractor seeing the patient. It is individualized based	



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		on the patient's conditions, with an average of 6 visits per episode of care over a 2-4 week period.	
	Relevant partnershipsAcademic, research		
Chiropractic Clinic Processes	 Patient characteristics Population, conditions, complexity Access patterns seen 	The LVH chiropractic clinic serves a general adult ambulatory population, mainly presenting with musculoskeletal conditions of the spine and/or extremities. Approximately 40% of new cases are referred by primary care or other specialties at LVH. The remaining new cases seek care directly, often recommended by existing patients. The clinic is accommodating to provide expedited access for cases as needed.	
	Services provided Diagnostic, therapeutic 	LVH chiropractors provide full scope diagnosis and management of musculoskeletal and neuromuscular conditions consistent with training and licensure. This includes manual joint manipulation and mobilization, soft tissue therapies, and active care approaches such as exercise and patient education.	
	 Case management CPGs/care pathways used Outcome assessment/reporting Communication/collaboration with other providers 	Bi-directional referral occurs with other departments. Generally, providers report informal processes of face-to-face communication for collaborative case management that they feel are very effective. Primary care providers engage in shared decision making with patients regarding available treatment options, and chiropractic is often the first choice for back pain cases.	



		Providers also communicate through the EMR as needed, and through formal team meetings. Generally, clinicians agree that time constraints pose a barrier to between- provider communication. Yet they also feel that this barrier is overcome through collegial cooperation, and referring providers find communication with the chiropractors to be appropriate and helpful.	
Impacts/Outc omes	Clinic functionUse, utilization, performance benchmarks	Cost and quality are the primary metrics that are measured by the hospital system. Along with office visits, referrals, new patient volumes and expenses versus revenue are all measured.	
	Patient statusOutcomes, satisfaction	Patient satisfaction metrics are often very high for the chiropractic clinic.	
	 System status Facility actual (or impression of) value Non-DC staff impression DC staff impression 	Stakeholders across all domains reported a very favorable perception of the chiropractic clinic's value to the system. Referring physicians reported high satisfaction with having chiropractic treatment as part of their case management approach, and noted positive clinical outcomes for patients. Interdisciplinary activities ranging from formal presentations to ad hoc encounters	Absolutely (the chiropractic clinic is valued), especially now in the day and age that we live where we're looking to keep costs down, look for other alternatives besides prescription drugs and surgeries. I think it's definitely a good thing to have chiropractic integrated in with the hospital network. (Staff)
		between the chiropractors and other providers at the facility are valued.	