



Rochester Lifestyle Medicine

Empowering you to live a happier, healthier life



Evidenced-Based, Medically-Supervised Intensive Lifestyle Behavioral Modification Program utilizing the CHIP Curriculum:

Information for **Rochester Area Businesses** Rochester, NY

**The next local programs start on Tuesday, March 14, 2017
at the Louis S. Wolk JCC of Greater Rochester**

Rochester Lifestyle Medicine, PLLC
at the
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Summary of program at the Louis S. Wolk JCC of Greater Rochester (JCC)

Note: The next two 18-session CHIP programs at the JCC of Greater Rochester will start Tuesday, March 14, 2017. The morning group will meet from 9:30 to 11:30 am and the evening group will meet from 6:30 to 8:30 pm.

- 1) Each 2-hour CHIP session will be held in a large room at the JCC (Auditorium B/C).
- 2) The room comfortably accommodates large (up to 36) and small group (6-8) discussions.
- 3) RLM will conduct the 18 2-hour weekly CHIP sessions and the subsequent monthly ClubCHIP sessions utilizing certified CHIP facilitators and licensed health care providers.
- 4) A CHIP kit (books and pedometer) will be provided to each patient as part of the basic 18 week program.
- 5) The JCC will provide Yoga and exercise classes as part of membership.
- 6) RLM will conduct whole-food plant-based cooking (CHIP) classes at added cost to the patients (these would be open to anyone). ClubCHIP meetings, supermarket tours and similar field trips will also be provided at additional cost.
- 7) Participants in the RLM CHIP program will be entered into RLM's Electronic Health Record and will be patients of RLM.
 - 1) RLM will act as a medical consultation service, issue regular consultation letters, and be responsible for adjusting patient medications in consultation and coordination with the patients' primary providers.
 - 2) RLM will use data collected to write articles for submission to peer-reviewed journals.
- 8) RLM will send consultation letters to the patient's primary care provider on a regular basis.
- 9) **RLM will bill the patient's insurance for the 18 group medical visits of the CHIP program, subsequent monthly ClubCHIP sessions, and the individual medical visits (3 during the first 6 months).**
 - 1) Patients who meet the following criteria will have their insurance billed for preventive services (no copay or deductible as mandated by the Affordable Care Act).
 - 1) BMI > 25
 - 2) One other risk factor for heart disease (hypertension, hyperglycemia, hyperlipidemia, etc.)
 - 3) Or, established diagnosis of CVD or Diabetes, and normal BMI.

Costs:

1) **Costs to participant for 18 session CHIP program with 6-month membership at the JCC:**

Non-member:	\$1390.00
Discounted JCC member price:	\$1170.00

2) **Costs to participant for 3 medical provider visits** which will be billed to insurance: Maximum of \$460 (\$200 for initial visit, \$130 for subsequent 2 visits), if not covered by insurance. Insured participants may be responsible for applicable copays for the 3 visits (unless billed under preventive codes, in which case there may be no copay or deductible requirement).

3) **Costs to participant for 3 lab draws** which will be billed to insurance: \$78 per test X 3 = \$234 Insurance is likely to fully cover most or all of these tests.

4) **RLM will also bill the patient's insurance company** for the second hour of each of the 18 2-hour sessions between \$12 and \$25 as a **preventive shared-medical** visit (no-copay or deductible; total \$216 to \$450). The patient will **not** be responsible if the insurance company does not pay.

Self-insured entities and businesses who choose to send an employee for the program will be billed for the above services a total of \$2300 which is the sum of 1 through 4 above (\$1390+\$460+ \$234+\$216). Please contact April Wenzel (april@roclifemed.com) or Dr. Barnett (ted.barnett.md@gmail.com) for specifics related to individual businesses.

What is CHIP?

CHIP (the Complete Health Improvement Program) was developed at Loma Linda University in Loma Linda, California over the last 25 years. Loma Linda is one of the world's "Blue Zones" where people tend to live healthy lives well into their 90's and beyond.¹ The program consists of 18 high quality videos lasting 30 to 45 minutes which are viewed during each 2-hour session. The remainder of each session is devoted to small and large group discussion. Each patient receives a "CHIP" kit consisting of a textbook, workbook, cookbook, pedometer, and water bottle. At Rochester Lifestyle Medicine, we augment the basic CHIP curriculum with medical supervision as well as cooking and yoga classes.

[Note: There is a shorter version of CHIP with shorter videos which are designed to fit into 18 one-hour sessions. This can be useful in settings where the patient is unable to make the longer commitment (during lunch hour etc.).]

One of the most desirable aspects of the whole-food plant-based diet that forms the basis for the CHIP program is that there is **no calorie counting or portion control**. Patients are only asked to eat from a wide variety of healthy and delicious plant foods. Because they are not restricting intake, most patients lose weight easily without feeling deprived. To hear a discussion of this, we suggest you listen to Dr. Chad Teeters, the chief of cardiology at Highland Hospital. At last report (September, 2016), he had lost 60 pounds and was feeling better than ever. You can listen to him being interviewed by Evan Dawson on WXXI here: <http://wxxinews.org/post/connections-highland-hospitals-chief-cardiology-goes-vegan> or read his testimonial in the appendix.

How are our patients doing?

We are proud to say that most of our approximately 90 patients are doing extremely well. We regularly document significant weight loss—including one patient who has lost 83 pounds in 8 months and continues to lose weight. We regularly have patients whose heartburn resolves, arthritis improves, and insomnia resolves. Most patients with prescriptions for high blood pressure, elevated cholesterol, and/or elevated blood sugar are able to reduce or eliminate their medications. At least two of our diabetic patients are now completely off of insulin! One of our patients was taking \$12,000 worth of medication when he began the program in February 2016. At last check, in consultation with his physician, he had stopped taking virtually all of his medication, saving \$12,000 in medication cost every year!

Testimonial of Lee Hankins (Building contractor, Rush, NY) January 2017

"For twenty years, I relied on more than 10 prescription meds to help control heart disease and arthritis, and still had high cholesterol, blood sugar, and blood pressure, heartburn, and inflammation. Through Rochester Lifestyle Medicine, I learned to enjoy a plant-based diet, exercise, and manage stress. Now my weight, heart-rate, blood pressure, sugar and cholesterol levels are all normal without taking meds. I feel great!" [Initially he had been spending ~\$12,000 per year on medications. He is now down to practically zero.]

¹ https://en.wikipedia.org/wiki/Blue_Zone

The Problem for the Rochester Area (and the USA at large)

The population of the Rochester Metropolitan Area is approximately 1.2 million people. Given that roughly 10% have diabetes, 30% are overweight and 30% are obese, then there are approximately 120,000 with diabetes, and over 700,000 who are overweight or obese. These people are extremely likely to suffer from the pain and debilitation of chronic illnesses such as coronary heart disease, stroke, renal failure, arthritis, lower extremity ischemia and neuropathy, blindness, etc. In addition to medication, the treatment of these illnesses includes open heart surgery, coronary artery angioplasty and stenting, hemodialysis, joint replacement, amputation, nursing home placement, etc.

Additionally, it is now predicted that, for all children born after the year 2000, the rate of development of type 2 diabetes will be greater than 1 in 3. This predicted rate rises to 1 in 2 for Black, Hispanic, and Native American children.^{1,2} This is unacceptable.

The price we pay—and will continue to pay—in terms of misery, economic decline, and increased health care costs is overwhelming. Most primary care providers do not have the time or resources to address the underlying causes of these problems.

The Problem for Employers

Rising costs of health insurance and health-related absenteeism are becoming more of a drag on employers (and the general economy) every year.

The Solution for Employers

The CHIP Curriculum has been proven in scientific studies published in peer-review journals to not only improve health but to also significantly decrease health care costs.³ The initial investment can be recouped in as little as 6 months.

There is no question that almost everyone who adheres to the principles of the CHIP program will reap significant benefits (the more room for improvement, the more benefits). However long-term adherence can be an important obstacle to continued benefit. That is why RLM offers the CHIP curriculum as part of 6-month and one-year programs with continued meetings and activities after the initial 18 sessions through ClubCHIP.

While modern medicine has become adept at treating the symptoms of disease, it has not done a very good job at addressing the underlying disease processes. The CHIP curriculum teaches practical principles that address the underlying causes of disease. Because of this, many patients who participate in the CHIP program, will experience arrest and even reversal of their diseases while, at the same time, requiring less medication and surgical care. This can significantly reduce medical costs. Please see “Amazing Images” under “Resources” on our website.

² www.webmd.com/diabetes/news/20030616/one-in-three-kids-will-develop-diabetes

³ www.cdc.gov/features/diabetesfactsheet/

As noted below, most of our nation’s health care costs are associated with behavioral issues that are strongly influenced by the culture at large. For this reason, RLM works to create a healthful environment for everyone—not just those enrolled in our programs. Employers can expect decreasing costs and improving health for all employees who come in contact with those enrolled in our programs.

Supporting Documents

In 2014, the United States Preventive Services Task Force (USPSTF) recommended offering or referring adults who are overweight or obese and have additional cardiovascular disease (CVD) risk factors to **intensive behavioral counseling interventions to promote a healthful diet and physical activity** for CVD prevention. ⁴

In 2008, in an article in the American Heart Association’s journal *Circulation* (Volume 117(9): 1216-1227), the authors concluded that: “The goal of **eliminating 90% of CHD** [Coronary Heart Disease] is feasible with control of the major established risk factors beginning in youth. . . **The cultural and societal changes necessary to achieve this goal won’t be easy, and they won’t happen soon, but it’s time to start.**” ⁵

In February 2015, the United States Dietary Guidelines Advisory Committee (DGAC) stated in their Executive Summary “**Positive changes in individual diet and physical activity behaviors, and in the environmental contexts and systems that affect them, could substantially improve health outcomes.**” ⁶

Who we are:

We are a group of over 50 Rochester-area professionals dedicated to spreading well-being and happiness by teaching the principles of a healthy lifestyle. We consist of 12 physicians, 4 Nurse Practitioners, 3 Physician Assistants, 2 Registered Dietitians, 6 Social Workers, a PhD Psychologist, 2 Chiropractors, a Yoga instructor, and several Certified Health Coaches and Personal Trainers.

We are presently expanding our professional base to include representatives from the Buffalo area.

Why RLM?

RLM was created to bring a new approach that encourages personal responsibility and uses the techniques of Lifestyle Medicine to address this huge societal and cultural problem. The CHIP curriculum was chosen because of its relative **ease of scalability and its potential to reach a significant fraction of the hundreds of thousands of people** in our area who would benefit by adopting our recommended lifestyle changes.

⁴ (<http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/healthy-diet-and-physical-activity-counseling-adults-with-high-risk-of-cvd?ds=1&s=cvd>)

⁵ <http://circ.ahajournals.org/content/117/9/1216.full>

⁶ <http://health.gov/dietaryguidelines/2015-scientific-report/02-executive-summary.asp>

RLM's Goals

- Rochester Lifestyle Medicine, PLLC was created to accomplish the following in our Area:
 - Reduce the individual and societal burden of chronic disease
 - Reduce the burden of health care costs related to chronic disease
 - Move so many people toward a happier and healthier lifestyle that the population at large moves in the same direction
 - Create a Lifestyle Medicine practice model that is sustainable and reproducible elsewhere (and can be used by young physicians entering practice)
 - Put ourselves out of business by creating a community that lives the CHIP principles and no longer needs us!

RLM's Methods

- We plan to achieve our goals by:
 - Helping people to move towards a Whole-Food Plant-Based eating pattern
 - Helping people to increase their daily physical activity
 - Teaching stress reduction techniques
 - Teaching people how to take personal responsibility for their own health
 - Providing ongoing support in order to sustain health benefits
 - Monthly ClubCHIP for continued social support and community building
 - Online patient forums
 - Regular personal sessions with a provider
 - Regular periodic lab tests
 - Conducting medical research to help build the knowledge base of Lifestyle Medicine

RLM's Principles

- We are guided by the following principles:
 - We will advocate only for lifestyle changes that are affordable and accessible.
 - We will always be aware of the need to reach out to those least likely to seek our help.
 - We will promote only educational services. (Such as CHIP, Cooking Instruction, Exercise, Stress Reduction, Yoga, Meditation, etc.)
 - We will not sell products such as supplements, vitamins, or equipment.

What are the CHIP Principles?

- Eating a diet consisting mostly, or entirely, of plants as grown (whole-food plant-based)
- Regular Exercise and outdoor activity
- Regular stress reduction practice
- Forgiveness and focusing on the positive
- Social connection and support

Our Lead Physicians

Ted D. Barnett, MD	Founder, CEO, and Medical Director (ted.barnett.md@gmail.com) Vascular and Interventional Radiologist, Rochester, NY
Kerry Graff, MD	Assistant Medical Director Coauthor of the <i>4Leaf Guide to Vibrant Health</i> Family Practice Physician, Canandaigua, NY
Susan Friedman, MD	Director of Clinical Research Geriatrician, Highland Hospital, Rochester, NY
Rosalind Hayes, MD	Director of Corporate Health and Wellness GYN/Reproductive Endocrinology and Infertility, Rochester, NY

RLM Administration and Staff

April Wenzel	Executive Administrator	april@roclifemed.com
Regina Geames	Program Coordinator	regina.geames@roclifemed.com

Our Program

Year one:

After self-referral or referral by their provider, the patient has an initial visit with one of our providers to discuss the program, evaluate their needs, and assess their readiness to change. If found to be suitable candidates for intensive lifestyle modification, patients are enrolled in the 18-session **CHIP** program with the assumption that they will participate for at least one year.

The patient receives the CHIP kit containing the complete curriculum (textbook, workbook, cookbook, and pedometer). The patient completes the 18-session intensive CHIP program in 9 to 18 weeks. Each of the eighteen two-hour group sessions is based on one of the eighteen 30 to 45 minute CHIP videos plus small and large group discussion. During the initial 9 to 18 weeks, the patient has blood tests performed three times and is seen by one of our providers three times (including the pre-program visit). The patient is then followed for the remainder of the year with monthly two-hour Club CHIP meetings, quarterly personal sessions with one of our providers, and follow up quarterly blood tests. **The patients are enrolled in a closed Facebook group with other members of their group.** Phone and email access to RLM staff is included.

Consultation letters will be sent to the primary care provider upon enrollment in the program, and at suitable intervals during the year. Contact will be made with the PCP whenever necessary in order to address the possible need to revise the patient's medication (medications are likely to be reduced or eliminated) or other aspect of their medical care.

One to several credentialed facilitators will be present at every group session (depending on group size). One of our billable providers (MD, DO, NP, or PA) will be present to supervise at every session.

For patients who are interested, optional cooking classes and supermarket tours may be made available at an additional charge.

Spouses and significant others are encouraged to enroll simultaneously.
"Buddies" and/or lifestyle coaches will be assigned to patients as needed.

Utilizing the data collected, article submissions to peer-reviewed journals are planned.

Subsequent years:

The patient is enrolled in CHIP Alumni Maintenance Program and becomes a "CHAMP." The CHAMP program includes monthly two-hour Club CHIP meetings, quarterly personal sessions with one of our providers, and up to two blood draws. **There is continued access to the closed Facebook group with other members of their group.** Phone and email access to RLM staff is included. Spouses and significant others are encouraged to enroll simultaneously. Consultation letters will be sent to the primary care provider at least twice each year.

Cost

The cost for the programs depends on a number of factors, including the insurance status of each patient and how the program is structured around the needs of the employer or institution. Please contact us for details.

Rochester Location and facilities

We have offices and a fully equipped classroom in newly renovated space in the Rochester Academy of Medicine which can handle groups of up to 24 patients.

Break-out sessions of 6 participants take place in smaller rooms around the Academy.

The Rochester Academy of Medicine is housed in a lovely old mansion with an attached 300 seat auditorium. Other tenants include the Rochester Medical Museum and individual professional practices.

Partnership with the Louis S. Wolk JCC of Greater Rochester

We are excited to announce that, beginning on March 14, 2017, we will be holding CHIP programs at the JCC! In addition to enrollment in the CHIP program, the patients will also be enrolled in a 6 month membership at the JCC. This will give them access to important complementary services such as yoga, weight-training, exercise classes, swimming, etc.

Offsite facilities required for programs

For programs taking place outside our offices at the Rochester Academy of Medicine, we require a room with AV equipment that can accommodate 20 to 40 people as well as space for small breakout sessions of approximately 6 patients. A space for cooking demonstrations is also desirable.

Patient Care

Participants will be entered into our electronic health record (EHR) for documentation of their participation in the program, individual needs, medical history, lab results, biometrics, and progress.

The patients' primary care providers, will be notified of their enrollment in the program with a consultation letter. This will be followed up by regular notices at suitable intervals.

In consultation with the patient's primary physician, RLM will assist in adjusting patients' medications. We note that there is often a rapid decrease in the need for medications to control hypertension, hyperglycemia, and hyperlipidemia.

Outcomes Research

Our research program is directed by Susan Friedman, MD, associate professor, Department of Medicine, University of Rochester Medical Center. Patients will be expected to sign an agreement stating that they understand that data collected anonymously will be used to assess the effect of the program on their health as well as the effect on their health care costs. Data collected maybe be used anonymously for publication in peer-reviewed journals as well used by the employer to assess financial benefits.

More Information

Please visit chipealth.com and roclifemed.com for more details about the CHIP program and the services offered by Rochester Lifestyle Medicine, PLLC.

APPENDIX I (Local Testimonials)

Testimonial of Dr. Chad Teeters, Chief of Cardiology at Highland Hospital, Rochester, NY.
Dr. Teeters completed RLM's 6-week 12-CME plant-based nutrition course in April 2016. As of September, 2016, he has lost 60 pounds and feels better than ever!

"I came to whole food, plant-based eating very much a skeptic. As a cardiologist, I had frequently heard about the benefits, but largely attributed this to an overly excessive and largely unsustainable lifestyle change that real patients, and myself, would be unlikely to follow. I grew up in the South and fathom myself to be somewhat of an aficionado of smoking meats and BBQ! Thus, my first goal was to do some literature review and prove the data was slanted or untrue.....to no avail! I then decided I had to at least try it for myself to see if it was even feasible and then to be able to provide firsthand account for patients when they ask. I have always had difficulty with maintaining my weight, and in recent years I had tried a multitude of diets. All were relatively successful but not sustainable and ultimately left me hungry and unsatisfied. One of the things that appealed to me about the WFPB lifestyle was that there was no calorie counting, food group selections or special meals to purchase. I also found the Internet, live/ online classes/support groups/ information sessions to be quite helpful and jumpstart the journey.

Now, just under 8 weeks into the journey, I can honestly say I'm a testament to this being a sustainable and healthy lifestyle change. I've lost 41 pounds in that 8 week time, and I feel as energetic as ever. I used to be able to get by with 5-6 hrs of sleep, but in recent years struggled if not getting 8 hrs. My blood pressure had been as high as 170 mmHg (systolic), and I am fairly certain I was at least borderline diabetic. My blood pressure is now 123 mmHg, I no longer get as many headaches, my adult acne has improved, and I no longer have heartburn (which had become a significant issue for me). I eat a completely whole food, plant-based diet without exception. I'm sleeping 5-6 hrs a night and this has allowed me to start exercising regularly again.

I now feel comfortable discussing this with patients and recommend this as a treatment for their health. I truly feel content, and I've even learned to use my smoker to smoke vegetables! I've thus gone from the ultimate skeptic to an unflinching advocate. I feel satiated with my meals and I'm enjoying trying new recipes and meals. I'm proud, if not completely shocked, to call myself a vegan!"

Testimonial of Ted Howard (Lawyer and Town Supervisor, Pavilion, NY) April 2016

On April 14, 2015 while doing what I regarded as only very moderate exercise my defibrillator discharged - 4 times. I ended up back in Strong hospital where I received a newer and better battery pack, more leads into my heart and a coil placed in back of the heart - all to shock me more efficiently next time and part of the life-extending measures taken since my 1998 heart attack. I went home after numerous lectures by doctors who did not appear to be old enough to shave. My ejection fraction was down to 20, and I had a less than optimistic outlook.

In August, against my better judgment and the judgment of all of my family and friends, I determined I should run for public office one more time. The reasons are not important; the decision to run was. In preparation for the September primary, I went out to install a campaign sign. By the time I got that single sign in the ground - not normally much of a task - I was 'whipped'. Panting, shaky, and out of breath, I was questioning my own sanity.

A couple of weeks later on September 9, 2015 my wife, Sandi, who has always given me more support than I could ask for, approached me with a copy of a book entitled *Prevent and Reverse Heart*

Disease by Caldwell B Esselstyn, MD. Sandi has been a vegetarian for some time, but I was a committed carnivore. She said, "Take a look at this and see what you think." Ah! The master of the soft-sell! I read it from cover to cover and decided it sounded like maybe it could help. On September 11, 2015 she asked me what I thought and I replied that I thought it was worth a try. We agreed to try it until the end of the year and see how it went.

Along comes the general election in November, and I went out to put up a few signs. The next thing I knew, I had placed at least 20 signs with no ill effects. I knew then that we were onto something worthwhile.

About this time I saw an article in the D & C about the lifestyle course being offered by the University of Rochester. We talked about it and signed up that day. We were too late. The first group was filled, so we figured on being in the next group.

As luck would have it, we began receiving information about "Lunch with Docs," RAVS, and other plant-based eating groups. Somehow the gods of the bloodstream smiled upon us and we found out about Ted and Carol Barnett's 6-week lecture series at Rochester General. We signed up and were captivated, educated, informed and really inspired by both Barnetts. Near the end of their program, we were feeling a bit let down that the Thursday night meetings were ending. But once again the gods of good eating smiled upon us and Ted Barnett told the class about his upcoming **CHIP** program.

We were most anxious to sign up and as the saying goes, "the rest is history." **CHIP** has proven to be invaluable in educating and reinforcing the benefits of a whole-foods, plant-based, active lifestyle.

I have seen considerable progress right from the beginning. I have slowly but steadily lost 20 plus pounds with no great sacrifices, no counting calories and no weighing or measuring portions. At some point I realized I have not used Tums or Alka-Seltzer in months. I used to take it 3-5 times a week. I now enjoy spicy food again with no disastrous effects. I sleep much better and am not continually tired. Sandi reports my snoring and sleep apnea are gone. I can go up stairs without stopping to catch my breath. Walking is no longer an effort. The physical improvements, while impressive to me, are really the least of the changes. In spite of myself, I find that I enjoy listening to music again - too loud at times. I've even been known to smile again and my gallows humor has returned - a good thing? Although it is impossible to quantify, I am sure that my mental acuity is sharper.

I lost my left foot to a traumatic injury in 2002 and have always had considerable pain in my residual limb - sometimes severe. I can report no serious issues with it since at least the first of the year. Perhaps the circulation in the remaining limb has improved to the point of eliminating much of the nerve pain? I hope so!

Sandi has been all-in from day one and is incredibly supportive. We both have delighted in our effortless weight-loss and have enjoyed experimenting with cooking and eating in a totally new way using plant-based, whole-food, oil-free recipes from a number of the cookbooks which Carol introduced to our class - especially the *Prevent and Reverse Heart Disease Cookbook* and *Forks Over Knives*. Neither of us experienced a serious cold this winter - surely a first! Life is much better for both of us, and we hope that our friends and family will note the positive changes in us and be open to a change in lifestyle for themselves.

Our original three month commitment has lengthened to nearly seven months with no end in sight. We have not found the diet changes to be onerous, but the support of well-informed like-minded people helps tremendously. For those who are not lucky enough to have a committed spouse with them, I strongly suggest recruiting a close friend to "walk the walk" with them. It makes it so much more fun and we all know that greatly increases the odds for success.

APPENDIX II (National examples)

Corporate Employee Wellness CHIP Sample Results

CHIP saved Vanderbilt University **\$75,000** over 6 months with just 21 employees.

Christ Hospital employees experienced an amazing change in culture and wellness.

Lee Memorial Health System saved **\$70,000** over 12 months with just 28 employees.

Kaiser Permanente helped 42 patients reduce HA1c by an avg. of 1.9 points in 3 months.

Vanderbilt University Study

INTRODUCTION

Chronic illnesses have consistently been the largest determinant to rising health care expenditures in the United States and many other industrialized countries. A wealth of empirical evidence further suggests that 70 to 90 percent of such chronic illnesses as diabetes, cancer, cardiovascular disease, and stroke, and certainly death, from these common conditions are preventable and caused by poor lifestyle choices.

KEY POINTS

- Health care costs were substantially reduced for study participants compared to the non-participant group.
- Intensive lifestyle education and training is feasible in a workplace setting.
- Approximately 23.8 percent of study participants have been able to eliminate one or more of their medications.
- Positive changes were seen among study participants in HBA1C and cholesterol results as well as positive changes in self-reported physical health and well-being.

VANDERBILT STUDY CONCLUSION

The evidence that diet and exercise affect health and well-being is irrefutable... Findings of this study suggest that it is possible to achieve engagement around changing lifestyle behaviors in an employee population in a workplace setting. And, that an intensive, comprehensive lifestyle program is capable of generating measurable savings with a meaningful return-on-investment (ROI) within a relatively short period of time. The study showed the total health care cost (medical + prescription drug) savings for this six-month time frame was \$75,000.⁷

Lee Memorial Health System

“Last April, Lee Memorial introduced its most comprehensive program to date, the Complete Health Improvement Program, offered through Lifestyle Medical Institute. Employees identified with higher risk factors attend twice weekly sessions focusing on plant-based nutrition and regular exercise...’ says Dr. Lacagnina, ‘We want our employees to see themselves as role models of healthy living, that incorporating healthy daily habits makes a difference in everyone around them. They cook better at home, their kids eat healthier and they pass along this knowledge to family and friends.’”⁸

Lee Memorial CHIP Results (12 month post CHIP):

Financial Investment :	\$37,800
Financial Savings :	\$70,155
Average cholesterol reduction:	27.7 pts.
Average LDL improvement:	20.7 pts.
Average BMI improvement:	6.7 pts.
Average weight loss:	17.1 lbs.

⁷ Shurney, D., S. Hyde, et al. (2012). "CHIP lifestyle program at Vanderbilt University demonstrates an early ROI for a diabetic cohort in a workplace setting: a case study" *Journal of Managed Care Medicine* 15(4): 5-15.

⁸ Nanci Theoret (2014) "Employee wellness: Companies spend on health programs to keep costs down" *Naples Florida Weekly - Business News* 02/06/14

Blood pressure normalization: Most participants

"With CHIP's help, I have lost - and kept off - 30 pounds for more than 9 months. My cholesterol has been reduced from a consistent 200-202 to a consistent 160 now." Mary Paredero, Director, Cape Coral Hospital Emergency Department

Christ Hospital Health Network

After participating in the program with his wife and experiencing results that were "beyond belief," Wick Ach, CEO of Hixson Architecture, Engineering, Interiors, partnered with the Christ Hospital Health Network's wellness team to bring the program to Hixson associates. A company like Hixson provides health coverage for more than 300 lives through its self-insured plan. This means that the company is directly responsible for the costs of its employees and their families, rather than relying on a commercial insurance company or HMO to provide benefits. Hixson offers optional programs like CHIP to support its workforce and ensure that employees are happy and healthy, while also recognizing that the types of lifestyle improvements that result can lower the company's healthcare expenses.

Aside from creating healthy families and a healthier workforce, CHIP addresses some of the current healthcare challenges that many individuals and employers face. This program is part of the future of healthcare, says Dr. Mechley, because it focuses on improving the health of the general population, rather than just shifting costs from one arena to another. "We're seeing the shifts now," she says. "The healthcare and insurance industry is shifting some responsibility to providers." Though CHIP is an initial investment, the long-term benefits for individuals and organizations outweigh the upfront cost of the program.

Christ Hospital CHIP Results (2 month program):

Average LDL decrease:	12.6%
Average triglyceride decrease:	11.0%
Average glucose decrease:	5.0%
Average resting heart rate decrease:	5.0%
Average weight loss over 2 months:	11 lbs.

Kaiser Permanente

Kaiser Permanente is a leader in their field, always on the lookout for innovative ways to reduce the burden of chronic disease for their patients. The Department of Preventative Medicine and Health Education and Department of Endocrinology ran a CHIP pilot for diabetic patients with a HbA1c over 9. The primary goal was to help patients gain better control their blood sugars. Improving food choices, reducing weight, BMI, cholesterol, triglycerides and diabetic medication dependence were also a priority.

Kaiser Permanente CHIP Pilot Intervention (42 participants over 3 months):

Average HbA1c decrease:	1.9 points
Average cholesterol reduction:	17 points
Average LDL improvement:	10 points
Average triglyceride improvement:	36 points
Average weight loss in 3 months:	11 pounds
Stopped insulin:	6 patients
Stopped Januvia, Byetta, or Actos:	4 patients
Reduced glipizide/glyburide 50% or more:	10 patients
Achieved goal of HbA1C of 7 or less:	9 patients
Total amount of insulin/month stopped:	1,026 units (50% reduction)

Medication Costs

Lantus:	\$ 120 per 10 ml vial
NPH	\$ 12 per 10 ml vial
Byetta	\$ 320 per month
Januvia	\$ 190 per month