



Hospital Solutions White Paper Series, September 2016

Lifestyle Medicine in the Evolving World of Healthcare Delivery and Financing

“It is, quite simply, the best medicine we’ve got.”

- Dr. David Katz, President of the
American College of Lifestyle Medicine

The cost of healthcare has been at the forefront of our nation’s fiscal challenges for decades, impeding our competitiveness in the global economy and creating incessant pressure for a systematic shift to value-based care. Health expenditures in the U.S. consume a much larger share of its GDP – 18% – than other developed nations, but the return on that investment, as measured by the health status of our nation, is alarmingly low.

The Patient Protection and Affordable Care Act (PPACA) was intended to help drive the transformation of America’s healthcare system by expanding public and private healthcare coverage and advancing changes in the payment model to incentivize providers to improve care and reduce cost. However, further change is needed and there is still considerable work to be done if America is to have a healthcare system that is high quality, sustainable, and equitable for all Americans.

As suggested in a 2010 study by PricewaterhouseCoopers, addressing waste within the healthcare system may help eliminate approximately 50% of the \$2.2 trillion of excess cost. By viewing waste in the following three categories, the size of opportunities can be prioritized and rewarded:

- **CLINICAL (\$312 BILLION):** Waste associated with errors or unjustified variation in clinical practice that results in misuse or overuse of resources.
- **OPERATIONAL (\$126-\$315 BILLION):** Waste caused by administrative complexity, ineffective use of IT, and claims processing.

- **BEHAVIORAL (\$303-\$493 BILLION):** Waste resulting from lifestyle choices that lead to avoidable chronic healthcare conditions and their associated complications and cost, most notably: obesity, smoking, poor adherence to care plans, substance abuse and stress.

Providers have focused largely in recent years on addressing the seemingly more manageable clinical and operational waste, the “low-hanging fruit.” However, minimal efforts have explored opportunities to impact the largest waste category through programs designed to address the underlying cause of chronic disease – lifestyle.

Exhibit 1

Cardiovascular Disease

- Leading cause of death in the U.S.
- 90% is predicted to be attributed to lifestyle-related activity
- 17% of U.S. health expenditures
- Expected to triple to \$818 billion by 2030

Evolving Payment Models and the Trend in Provider Response

As the industry moves in earnest toward fee-for-value, hospitals and health systems must strategize how to move toward a value-based payment model while maintaining components of a fee-for-service structure.

Value-based models provide both positive and negative

incentives tied to achievement of process and outcome indicators associated with reliability, efficiency, and evidence-based practice. Accountable Care Organizations (ACOs) and gainshare arrangements allow providers to share any savings realized across the entire episode of care for an attributed population of patients, measured by frequency of encounters. While these models have made some progress in reducing the clinical waste associated with diagnosis and treatment, they fail in many cases to address the behavioral characteristics at the root of the condition and the opportunities for earlier, non-medical intervention.

Signaling a tipping point in the transition to value-based payment is CMS' July 2016 proposal to expand the mandatory bundled payment program to include models for cardiac care and cardiac rehabilitation. The increased risk not only incentivizes providers to improve post-acute care and reduce readmissions, but it creates an opportunity to focus on the underlying causes of cardiac disease.

To capitalize on the advent of new payment models, providers must move beyond assuring reliable, evidence-based care to developing an infrastructure that supports sustainable lifestyle change. This approach not only positions them to be successful in a value-based system, but it addresses the *lifestyle choices that give rise to the chronic conditions themselves*. **That is the focus of lifestyle medicine.**

Introducing Lifestyle Medicine

Many clinicians argue that while making comprehensive lifestyle changes undoubtedly benefits the patient, it also risks being unsustainable given the difficulty in getting patients to adhere to even traditional therapies. How can providers convince and motivate patients to make lifestyle changes powerful enough to significantly impact clinical outcomes if patients can't take their statins regularly?

Led by pioneers like Dr. Dean Ornish, President and Founder of the nonprofit Preventive Medicine Research Institute, there is a formidable and growing body of evidence indicating that under the right lifestyle conditions, the body has a tremendous innate ability, not only to fend off the onset of disease, but to actually reverse the disease process.

Dr. Ornish and his colleagues have published more than 25 peer-reviewed papers over the past 35 years, scientifically proving the transformational impact that lifestyle medicine has on managing and reversing the progression of heart disease. In those studies, he has consistently demonstrated the following benefits:

- Regression of coronary artery stenosis using quantitative coronary arteriography
- Safe avoidance of revascularization procedures — such as coronary bypass



“Lifestyle as medicine has the potential to prevent up to 80 percent of chronic disease; no other medicine can match that. In addition, it is potentially inexpensive and even cost-saving; free of all but good side effects; safe and appropriate for children and octogenarians alike. It is, quite simply, the best medicine we’ve got.”

– Dr. David Katz,
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surgery, angioplasty and intracoronary stents — in almost 80% of those who were eligible for these procedures, with comparable clinical outcomes

- Significantly greater exercise capacity
- Substantial improvements in quality of life by a variety of measures (including decreased emotional stress and depression, and increased vitality, physical function and well-being)
- Decreased size and severity of ischemic myocardial perfusion abnormalities (blood flow to the heart) using cardiac PET, exercise thallium stress tests and exercise radionuclide ventriculography
- Substantial cardiac risk factor improvements, such as reductions in LDL-cholesterol (comparable to what can be achieved with statin drugs without the costs and potential side effects), weight, Body Mass Index (BMI), blood pressure and fasting blood glucose
- Decreases in the frequency and severity of angina
- 2.5 times fewer cardiac events

Dr. Ornish’s research has also measured significant improvements in other chronic diseases prevalent in the population – including obesity, diabetes, hypertension, hypercholesterolemia, depression, and prostate cancer – all of which can positively impact clinical and behavioral waste in the short and long term.

Provider and Payer Opportunities

In the face of the evidence supporting the clinical effectiveness of the Ornish Lifestyle Medicine formula, in 2011 the Centers for Medicare & Medicaid Services approved the Ornish Reversal Program for 72 hours of Medicare reimbursement under a new benefit category, Intensive Cardiac Rehabilitation (ICR). This legislation established lifestyle medicine as a clinical treatment alternative for cardiac disease, making Dr. Ornish’s program the first of its kind to receive this level of support.

Following Medicare’s lead, commercial payers across the country recognize that paying for this intervention in many cases averts the need for more expensive procedures, impacting both clinical and behavioral waste. They see the business case to pay for more of the “right thing” in the short term to avoid even costlier procedures in the long term. While some payers have adopted more preventive inclusion criteria, the following represents the Medicare criteria for participating in an Intensive Cardiac Rehabilitation program:

- Acute Myocardial Infarction within the last 12 months (Heart Attack)
- Coronary Artery Bypass Surgery
- Current Stable Angina Pectoris (Chest Pain)
- Heart Valve Repair or Replacement

Exhibit 2

Ornish Reversal Program	
Maximum Billable Hours	72
Average Hours Attended	66.5
Average Medicare Reimbursement	\$107/Hour
Average Revenue Billed	66.5 x 107 = \$7,115

- Percutaneous Transluminal Coronary Angioplasty (Balloon) or Coronary Stenting
- Heart or Heart-Lung Transplant

Benefits of ICR

With the industry's shift to shared-risk payment models, providers are increasingly looking at ICR not only as an argument for integrative care within their traditional cardiac rehab program, but also as an opportunity for strategic service line development.

According to the Advisory Board Company, ICR can help brand hospitals, health systems, and physician groups as leaders in healthcare transformation and innovation, increase satisfaction and loyalty for consumers interested in disease reversal and prevention, and improve readmission rates.

Investing in the competencies necessary for an ICR program can position providers to lead in primary as well as secondary prevention, and thus continue to build alignment with community referrers. Additionally, ICR offers a clinical treatment alternative in the fee-for-service world that can add a revenue stream to physicians' cardiac service line.

Proven Clinical Outcomes

As evidenced by Dr. Ornish's research, the Ornish Reversal Program has produced better clinical outcomes than have ever been documented before in lifestyle change patients. Since the program has been offered commercially, participants have shown significant improvements in weight, triglyceride levels, cholesterol levels, blood pressure and more, including a 60% decrease in hospital admissions for chest pain (angina) after one year of following the program guidelines and zero admissions for angina after two years of following the program.

Exhibit 3

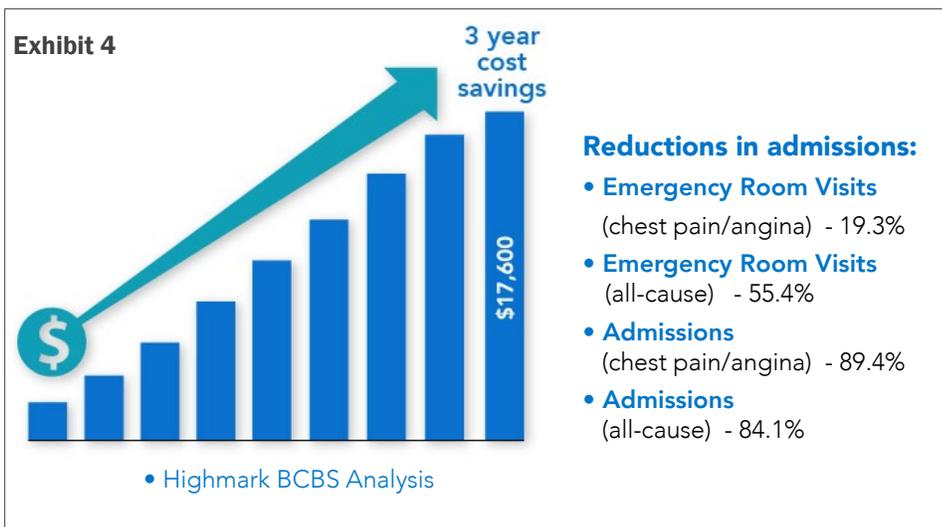
	Baseline	9 weeks	Change
Weight Loss	200.1	188.4	-5.9%
BMI	31.3	29.5	-5.9%
Total Cholesterol	168.8	141.8	-16.0%
LDL Cholesterol	92.1	7.2	-20.5%
HDL Cholesterol	47.7	42.4	-11.1%
Triglycerides	153	134.5	-12.1%
Systolic Blood Pressure	129.8	121.5	-6.3%
Diastolic Blood Pressure	76.0	71.4	-6.0%
HbA1c	6.8	6.2	-7.6%
Depression Score (CESD)	11.1	5.1	-53.5%

Financial Savings

In addition to its superior clinical outcomes, the Ornish Reversal Program has been proven to improve the quality of care while minimizing long-term costs. Specifically, it reduces the need for interventional revascularizations and costly medications for patients with one of several risk factors – including prior acute myocardial infarction, CABG surgery, a PCI procedure, or stable angina.

A study conducted at Highmark BCBS in 2000 using the Ornish Reversal Program resulted in an average savings-per-participant of \$17,687 over a three-year period, represented in \$2000 (Exhibit 4). The final savings estimate was based only on procedure avoidance.

Following this assessment, Highmark BCBS moved the Ornish Reversal Program from a value-added service to a defined benefit. An increasing number of commercial payers exclusively cover the program today, including Anthem in all 14 states, Blue Shield of California, HMSA, Highmark West Virginia, and Aetna.



What is the Ornish Reversal Program?

Delivered over the course of nine weeks, the Ornish Reversal Program is perfectly engineered to address the underlying issues around making healthier lifestyle choices (Exhibit 5). Participants attend 18 four-hour sessions in small, consistent groups of people (called cohorts) who understand each other's health struggles and share each other's goals for the future. An expert team of clinicians are trained to deliver the program, motivating and coaching participants through each session, and setting participants up for success from the beginning. This team includes a:

- Medical director
- Program director
- Nurse
- Registered dietitian
- Exercise physiologist
- Stress management specialist
- Group support facilitator



The Key to Lifestyle Medicine: Creating Sustainable Behavior Change

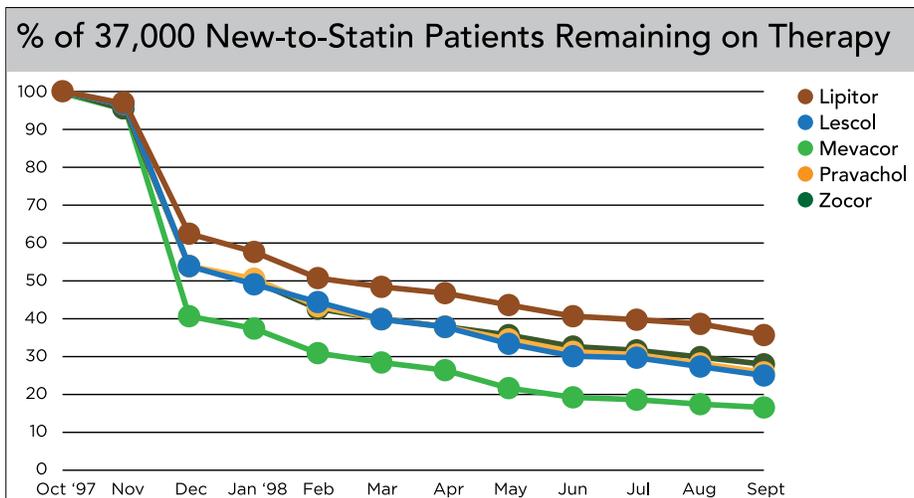
If cardiac rehab patients cannot adhere to medications or follow the minimum recommendations for lifestyle improvements, how can they make and sustain long-term changes to impact their health?

As noted in Dr. Ornish’s research, Ornish Reversal Program participants attend an average of 92.5% of billable hours and 87.9% are adherent one year after going through the program, a sharp contrast to pharmacotherapy adherence rates in the same amount of time (Exhibit 6) .

Its success indicates that the key to maximizing the impact of lifestyle medicine is understanding and leveraging the conditions that drive engagement and sustained behavior change, from enrollment to post-program support. Doctors and clinicians are recognizing that the program fills the gaps of traditional medical care because of its proven habit-forming design, which is rooted in the following:

- **Proven formula.** Participants feel so much better, they never want to go back to their old lifestyle.
- **Experiential.** Program of learning by doing.
- **Clinical Team.** Receive coaching and unwavering support from the multi-disciplinary clinical team.
- **Simple.** Every aspect of the behavior change is simple and easy. Extreme sacrifices are not required to be compliant.
- **Supportive.** Cohort members, loved ones and the staff are exceptionally supportive during the transformation.
- **Integrated.** Addresses the person holistically where they are in the context of their real life.
- **Community.** Participant become a part of a bonded community creating connection, support, resources, and accountability.
- **Pleasurable.** Built on a model focused on the positive, the opportunity to experience pleasure and improved quality of life – not fear and negative health consequences.

Exhibit 6



Why this Intensive Cardiac Rehabilitation Works

A supplement to traditional cardiac rehab, ICR positions providers as leaders in healthcare innovation because it supports the current state of fee-for-service while acting as a bridge to the fee-for-value world. Its lifestyle medicine-as-treatment approach prepares providers for the shift to risk-based contracts as it teaches them the competencies to create and sustain lifestyle change, avert higher costs, and develop a new line of revenue.

While waste in healthcare spending cannot be eliminated overnight, reducing the amount of one category can affect the size of the others. An evidence-based hybrid of clinical and behavioral treatment, the Ornish Reversal Program delivers comprehensive lifestyle changes that address cardiac disease at its root cause, preventing or reversing the disease process itself. The result is superior clinical outcomes, reduced readmissions, and lower long-term costs.

About the Author

Robert (Bob) Porter is Senior Vice President at Morgan Executive Development Institute (MEDI), a firm specializing in executive coaching and leadership development tailored for today's health executive and physician leader. Most recently, Bob served as Senior Vice President and Managing Director for the Ornish Reversal Program™ at Healthways, a Sharecare Company. Prior to that Bob spent 25 years with SSM Health Care in various positions including President of Programs and Services for the network of six hospitals and over 250 employed physicians.

For More Information



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Karissa Price is responsible for Healthways' portfolio of emerging businesses including Ornish Lifestyle Medicine, The Blue Zones Project, Healthways Diabetes Solution Service and the Gallup-Healthways Well Being Index. A graduate of Harvard University with a Doctorate in International Political Economy, Karissa is a strategic leader with broad industry experience as well as deep homecare experience and a passion for creating growth for organizations large and small. She has been a consultant for Fortune 100 companies, a co-founder of a healthcare startup, and lead product development, marketing, business development and strategy for the largest advertiser in the US Hispanic market.

About Healthways

Reimbursed by Medicare and many commercial payers, Healthways' Ornish Reversal Program™ is the first and only Intensive Cardiac Rehab program scientifically proven to reverse the progression of heart disease. More than 30 years ago, we started with programs to support diabetes care, progressed to help set the first national standards for disease management, evolved to support the continuum of health across populations, and finally expanded our scope from physical health to overall well-being improvement.

About Hospital 100

Hospital 100 is the most insightful and visionary conference for hospital and health systems executives. By invitation only and limited to 100 provider organizations, Hospital 100's mission is to inspire excellence in leadership, strategy and innovation, and to be a catalyst for change in this time of great opportunity (and risk).

The 2016 Hospital 100 Conference takes place October 16-18 at the Hyatt Regency Lost Pines in Austin, Texas. For more information, please visit www.hospital100.com.

References

1. CMS: Health Affairs, National Health Expenditure Projection: 2015-2025, July 2016
2. PricewaterhouseCoopers' Health Research Institute: The price of excess: Identifying waste in healthcare spending, 2010
3. New York Times: How to save a trillion dollars, Mark Bittman, April 12, 2011
4. Circulation, January, 24, 2011
5. Modern Healthcare: Bundled-payment expansion brings providers more risk – and opportunity, Elizabeth Whitman, August 1, 2016
6. CMS: Cardiac Rehabilitation and Intensive Cardiac Rehabilitation, May 21, 2010
7. The Advisory Board Company: How intensive cardiac rehab can impact your patients – and your bottom line, February 24, 2016
8. Healthways: 2016 Q1 Ornish Reversal Program™ outcome data, April 2016
9. Ornish Reversal Program outcome data managed by Highmark Inc., 2011
10. NDC Health Information Services, 1998.
11. National Center for Biotechnology Information, U.S. National Library of Medicine: Cancer is a Preventable Disease that Requires Major Lifestyle Changes, July 2008
12. The Advisory Board Company: What You Need To Know About Intensive Cardiac Rehab, February 22, 2016