Education

IN LIFESTYLE MEDICINE

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Cummins' Vision: Improved Health Through Lifestyle Medicine Innovation

Abstract: *The importance of lifestyle for overall health and well-being cannot be overstated. By Centers for Disease Control and Prevention estimates, nearly 80% of many chronic conditions such as heart disease and type 2 diabetes are preventable through the adoption of healthier lifestyles. Yet, while preventable, these common illnesses account for the majority of the rising US health care costs. For nearly a century, Cummins Inc, a large global employer headquartered in Columbus, Indiana, that designs, manufactures, distributes, and services diesel and natural gas engines and related technologies, has demonstrated a penchant for innovation. However, in the area of health improvement, the company believed it could do better and decided to address the prime factor—lifestyle—the root cause of the growing problem of chronic disease for its employees and their families. This report offers a glimpse into Cummins' forward-thinking strategy and their early efforts to combat preventable chronic disease through lifestyle and lifestyle medicine.*

Keywords: corporate lifestyle medicine; onsite clinics; diabetes disease reversal

Cummins Inc, a large global employer headquartered in Columbus, Indiana, designs, manufactures, distributes, and services diesel and natural gas engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions, and electrical power generation systems. Cummins has embedded in their mission statement that everything they do leads to a cleaner,

medicine—using proven lifestyle interventions in nutrition, physical activity, sleep, and stress reduction to prevent, treat, and even reverse many common chronic diseases.

The reason that Cummins wanted to make lifestyle medicine, education and training the foundational element of their overall health care strategy is that they understood the need to attack chronic disease at the root cause.^{1,2} Based on

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safer, and healthier environment. That commitment extends to the health and well-being of employees and their families.

For several years, Cummins' leadership had been frustrated with health care costs that continued to increase without seeing a similar improvement in employee health and well-being. To help address this issue, the company hired Dexter Shurney, MD, to serve as chief medical director and executive director of global health and wellness. Dr Shurney's focus is on lifestyle

evidence from the World Health Organization (WHO) and the US Centers for Disease Control and Prevention (CDC), the company realized that 60% of deaths are due to chronic diseases³ and that of those conditions 80% of all heart disease, stroke, and type 2 diabetes were preventable.⁴ These preventable conditions were also the greatest driver to the company's annual health care costs. And like other Fortune 500 companies, health care costs were rising without an improvement in the health status of their employees and families.

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According to the Kaiser Family Foundation, the annual premiums for employer-sponsored family health coverage have trended nearly 60% within a 10-year period and reached \$18142 in 2016.⁵ The challenge for the company and Dr Shurney was to figure out how to best share the lifestyle medicine concept with employees and their families, and how to put the concepts into operation in a practical manner.

Beginning in 2013, the company set its sights on a multiyear strategy to improve their population health status through an aggressive approach to lifestyle and lifestyle medicine. Fundamentally, the company believed it needed to adopt a healthier corporate attitude and put into place a framework to help its employees and their families change individual lifestyle behaviors. The framework involves (a) moving employees to a place of intrinsic motivation, (b) creating evidence-based health competencies they can use to be successful once motivated, and (c) building a culture of health to support and enable individuals wishing to make and sustain healthy lifestyle changes. The first step involved lifestyle training for employees and their family members. Starting as a pilot, the company partnered with the Lifestyle Medicine Institute (LMI) to launch the Complete Health Improvement Program (CHIP) in 2014. The CHIP program is an evidence-based, peer-reviewed program.⁶ It involves 8 weeks of lifestyle-focused training with an emphasis on nutrition, and also includes other aspects of healthy lifestyle such as physical activity, sleep, stress management, proper hydration, and eliminating or reducing the use of certain substances (drugs, alcohol, and tobacco).

The second step involved finding and building a network of physicians who knew how to practice lifestyle medicine or who were willing to learn. To accomplish this, Cummins partnered with the American College of Preventive Medicine (ACPM) and the American College of Lifestyle Medicine (ACLM) to develop 30 hours of Continuing Medical Education (CME) in lifestyle medicine.⁷ Based on a study published in *JAMA* in

2010, the company realized that few physicians had an adequate knowledge of lifestyle medicine and how to put the concepts into practice in order to prevent, treat, and reverse chronic disease.⁸ Training was provided to the clinicians who work in the company's onsite primary care clinics, as well as for the more than 500 physicians invited to participate in the company's High-Performance Network (HPN). The training is mandatory and is a condition of employment for the salaried physicians that work in the company's clinics, and for participation in the HPN. A future requirement for physician employment in the company's onsite clinics will include board certification in lifestyle medicine from the American Board of Lifestyle Medicine, which will begin its board examinations this year.

The training in lifestyle and lifestyle medicine for both the employees and the providers, respectively, helps lay the foundation for shared decision making regarding how to use lifestyle to meet the patient's prevention and clinical treatment needs.

Finally, Cummins wanted to bring it all together by building a state-of-the-art lifestyle medicine health care center near its company headquarters. Opened in June 2016, the Cummins LiveWell Center is a 28000-square-foot facility available to Cummins employees and their family member aged 2 years and older. Operated by Premise Health on behalf of Cummins, the facility offers a broad range of services and providers who work together in a lifestyle practice to get to the root of each patient's health care issues, treating the cause of disease, rather than just tackling the symptoms.

Services include primary care, rotating specialists, acupuncture, chiropractic care, physical therapy, massage therapy, exercise physiology, health coaching, behavioral health, dermatology, optometry, and occupational health. In addition, the concept of "food as medicine," is actively promoted through the onsite teaching kitchen—available for classes or one-on-one sessions with the chef to learn how to cook quick, affordable, healthy, and delicious meals.

The setting and facility are very different than most care settings. For one thing, the building and services were designed to attract individuals not just for sick care but also to motivate the healthy to become even healthier. With its bright, open spaces and artwork throughout, the center has the feel of hotel lobby or an inviting spa.

Patients are greeted in the welcome area by a host who helps ensure that the patient is taken to meet with a provider within 5 minutes of arrival. Patients who are visiting with a primary care physician for an initial appointment can expect to spend around 45 minutes with their provider so they have plenty of time to learn about their conditions and the lifestyle medicine approaches to improve these issues. The center also offers extended hours of Monday through Friday from 7 AM to 7 PM and Saturdays from 8 AM to 12 PM to provide flexibility for patients.

To begin the process of educating employees about the center, Cummins held an all-day open house the week before the official opening for tours of the facility and opportunities to meet the providers. Nearly 2000 visitors attended, scheduling more than 500 appointments during the event.

The open house was a sign of things to come as the utilization rate of LiveWell has been higher than expected. Based on benchmark data for US employer-sponsored onsite clinics, Cummins expected to see a penetration rate of 22%. Penetration rate is defined as the percentage of unique users from the primary target population of roughly 18000 lives that reside within a 20-mile radius of the center. Since the launch, Cummins is experiencing a penetration rate of nearly 52% and operating at a capacity that was not anticipated until *year four* of operations. As a result, additional staff has been hired to meet the demand.

While it's too early to have robust data, the LiveWell Center is tracking a number of performance measures including disease reversal for type 2

diabetes, overall reduction in medications, clinic utilization, net cost-savings related to medications, inpatient, outpatient, emergency room utilization, and workers compensation claims less the costs to operate the clinic, quality metrics based, including Choosing Wisely, and employee satisfaction using a Net Promoter Score. Cummins modeled its type 2 diabetes program from the pioneering work of Dr Neal Barnard and others in this area.⁹⁻¹¹ Cummins has also developed its own “lifestyle medicine index” based on body mass index, total cholesterol, glucose, and blood pressure to measure employee and family health at a population level. Used in aggregate, these measures will enable Cummins to compare the health status and costs of employees whose primary care is attributed to the LiveWell Center to those who receive care elsewhere in the community.

As part of the company’s global health and wellness strategy, Cummins will use the successes and lessons learned at LiveWell as they introduce the lifestyle medicine concept to all employees. The goal is to provide the tools and resources to engage them to choose the healthy lifestyle behaviors that interest them the most and could make the most impact on their lives. Through these efforts, Cummins strives to lower the disease burden of its employees and their families, helping them to achieve

healthier, happier, more productive lives.

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