



*The following article has been excerpted from the monthly newsletter of the American College of Lifestyle Medicine, March 2010 issue. Dr. Diehl is a member of the ACLM Advisory Board and recently completed a term on the ACLM Executive Board. He was not involved in the decision to do a story on his work. We are grateful to Dr. Diehl for his work over the years and his contributions to ACLM and the field of Lifestyle Medicine."*

## **In the Spotlight:**

*by Tricia McMahon*

**A**s founder of the Coronary Health Improvement Project (CHIP), Dr. Hans Diehl is director of the Lifestyle Medicine Institute at Loma Linda, California. His pioneering efforts with Nathan Pritikin and Dr. Denis Burkitt have shown compellingly that many of today's diseases are truly reversible through some simple lifestyle changes. As a bestselling author, researcher, dynamic speaker, and top-ranking motivator, he has lectured to whole communities, corporations and governments, and has presented seminars on four continents.



### **Ambition That Knows No Bounds**

Diehl's astonishment and praise for the ambitious North Karelia Project when he saw its first publications during graduate school, became central to his own ambition as a health professional. "I read about a young epidemiologist, Dr. Pekka Puska, who wanted to help the Finnish province of North Karelia, known for its 'valleys of beautiful widows.' Behind this ominous distinction hid the fact that many men died in their 40s and 50s from coronary artery disease. This young scientist, against all odds, set out to change this fact. And he did. He changed not only the mortality from heart disease and lung cancer in Karelia, but in due time, he changed it all over Finland. Dr. Puska's report laid the foundation for my commitment to community-based intervention in combating Western killer diseases."

"Similarly, my appreciation for the pioneering work of Nathan Pritikin knows no bounds as I look back over my years as Director of Education and Research at the Pritikin Longevity Center. It was Nathan Pritikin, an inventor with numerous patents, who after being diagnosed with coronary artery disease at the age of 41, started doing his own research and became convinced that people with cholesterol levels of under 160 mg% rarely ever developed this disease. In the process, he also discovered that people not afflicted with many of our Western diseases usually were physically active and followed a very simple whole-foods diet, high in unrefined, fiber-rich carbohydrates and very low in fat, particularly saturated fat from meat and dairy foods."

### **The Birthing of CHIP**

Concerned with how best to bring these concepts to society-at large, and taking his cues from Dr. Puska's community-based intervention model, Diehl began to understand that advocated lifestyle changes without thorough education, skill development, and a supportive infrastructure would be doomed to failure. He also learned that it was necessary to find a way to integrate the medical and public health models, and to

take advantage of an ecological, social concept where people would learn in a social setting as a group and feel supported by communal infrastructures.

Diehl's Coronary Health Improvement Project was born in the winter of 1988 when he was invited to conduct a four-week lifestyle change program in Creston, B.C., a community of about 5,000. Some 400 people accepted the challenge to take more responsibility for their health, becoming charter members of the first CHIP program. "Among the initial 400 people were Bob and Theresa Anderson, who became an inspiration to thousands of people," says Diehl. "The clinical results were so compelling that the program leapfrogged - largely by word of mouth - from one town to the next, ultimately ending up in Ottawa, Canada's capitol, where it was presented to the Canadian Parliament and to the Minister of Health of the Province of Ontario."

For more than 20 years now, CHIP has helped more than 50,000 people to rediscover their health by preventing, arresting, and reversing many of their diseases. It is an engaging, highly entertaining 40-hour scientific journey into the causes and consequences of our present "state of health" in Western societies. Piloted in communities throughout North America, and with results published in nearly 20 peer-reviewed medical journals, CHIP is making a difference. "CHIP will not only show you WHY we need to make better lifestyle choices but also HOW to stop the 'good life' from killing us," explains Diehl. "CHIP establishes the principle of health as an absolute necessity rather than a trendy option. It is not natural to be obese and hypertensive, have high cholesterol and triglycerides, and to suffer from diabetes, constipation, heartburn, angina, and heart disease. The goal is to lower blood cholesterol, triglycerides, and blood sugar levels by reducing excess weight, lowering high blood pressure, enhancing daily exercise, improving dietary choices, and eliminating smoking, thus aiding trained and licensed CHIP directors in preventing and reversing disease."

CHIP programs are available to the public as 1) live, city-wide programs conducted by Dr. Diehl in person, or 2) DVD video programs offered by corporations, medical, and faith groups for employees and communities. More than 450 teams have been trained and certified to run the CHIP program, which is now offered in cities across North America, the United Kingdom, Australia, New Zealand and in Germany.

### **HealthScreening**

"Before the educational program begins," explains Diehl, "a comprehensive health screen is conducted to establish risk factor levels of participants. Educational programs are presented in two-hour sessions that meet either four times a week for four weeks, or three times a week for five weeks, or twice a week for eight weeks. HealthScreen results are provided to each participant early in the program, and participants are encouraged to share their results and work closely with their personal physician regarding their need for medication as they modify their lifestyle.

"We do a fairly comprehensive assessment of people's lifestyle and dietary habits and a clinical assessment of their coronary risk. We measure their blood lipids (total cholesterol, LDL, HDL, Triglycerides), fasting glucose, height, weight, bone size, casual pulse and blood pressure levels." Immediately following the program, the HealthScreen is conducted again, and a detailed report is prepared for each participant that compares his/her risk factor levels before and after going through the program. Reports and course completion certificates are presented at a graduation program.

Graduates worldwide sustain adherence to the program guidelines through an active CHIP alumni support organization." Adherence rates to the program, assessed over a period of two years, have been some of the highest in the field. With angina pain relieved, with acid reflux gone, with insulin often totally eliminated by following a better lifestyle program, who wants to let go of the winning combination!" exclaims Diehl. "Bring back those seductive taste sensations and with that angina, acid reflux and insulin management for diabetes!"

Steven Aldana, PhD, the lead author of several published articles from a major state-of-Illinois supported CHIP Randomized Clinical Trial wrote, "Many of these (coronary) risk reductions are the largest ever re-

ported from a worksite intervention.’ (JOccup Environ Med 2002; 44: 831-839). Elevated cholesterols usually drop 15-30 percent. High triglycerides (over 250) drop an average of 30-50 percent. People lose an average of 7 lbs, while eating more foods but of the right kind.”

### **Defining the ‘Good Life’ on Terms That Are Truly Good**

Helping individuals get healthy by choice, not by chance, is at the core of Diehl’s work. “As a society, I think we are largely at the mercy of powerful and manipulative marketing forces that basically tell us what to do and what to eat, and often times we don’t even realize it is happening. These marketing forces encourage us to eat food that’s simply not healthy, and they encourage us to eat that food in large quantities. And, because we don’t understand the content of the diet being pushed on us, we are increasingly in danger of feeding our epidemic of diseases of dietary abundance. These powerful marketing forces, whether transmitted via television, radio, or billboard, tell us how valuable it is to supersize our meals or to get two pizzas for the price of one. Everywhere we look, we are being seduced to the ‘good life’ as marketers define it, but very few people actually understand that the good life is not so good after all. This so-called ‘good life’ has produced in this country an avalanche of morbidity and mortality. It has progressed to the point where every third death is now due to cardiovascular disease and every fourth death due to cancer. Our diabetes rates have skyrocketed 700 percent since WW II, and obesity is mushrooming.

“What I would like to see in America is not this ‘good life,’ but the ‘best life.’ The best life is a simpler lifestyle—one characterized by eating more whole foods, foods-as-grown, and prepared in a simple manner. The best life means getting into a regular exercise program, quitting smoking, and putting more time and effort into relationships rather than acquisitions. People need to change their way of thinking and develop more positive thought processes. The first step (and I’ll use weight loss as an example) is to recognize that certain clinical conditions (excess weight) are health erosive and harmful. People have to see the connection between proper weight and proper function, and how that can improve their life. Next, individuals must develop a belief that there are answers out there that are going to work for them. If they don’t believe this, they’re already stuck. The third step is that individuals have to believe that they can succeed - they have to be able to say, ‘I can do this. I can simplify my diet and engage in an exercise program.’ Once individuals come to the point where they believe these three things, then I think you have a fairly good model for success—provided there’s reinforcement and support over time.”

“It has been my experience that the key to weight loss is to help people understand the concept of caloric density. You can eat one slice of apple pie (which is about 500 calories), or you can eat five apples. You can eat one tube of Pringles (over 1,000 calories), or you can eat 10 potatoes. Which one is going to fill you up and give you satiety? Once people understand this concept of caloric density, then the light comes on. Once they understand the caloric concentration of many of our heavily-marketed American “foods” and how many miles they have to walk to burn off that extra slice of apple pie, then many would become more interested in just replacing that slice of apple pie with an apple, instead of walking 4 miles.”

### **The Magic of Support Within Groups**

Diehl is clear about the very real magic that happens in groups. “When you look at residential treatment and group approaches, you see that the often-cited stages of change are often dramatically compressed. It doesn’t take six months to move from the preparation stage to the action stage. It moves much faster when people work together and provide mutual support. In fact, in these controlled group environments you can often see dramatic clinical improvements, and disease arrest and reversal, even within days and a few weeks.”

“Group environments can much more effectively facilitate clinically documented improvements: less pain and medication, lower blood pressure and blood sugar, less angina and lower weight, and reduced medical costs. Supportive groups facilitate learning and understanding. People can exchange helpful bits of information and clinical improvements with others. It’s in such a cheerleading atmosphere that a sense of hope can develop. With hope, individuals have more interest in developing healthy life skills. They become interested and begin reading food labels, and they learn how to shop for healthier foods—more foods-as-grown—and as they do, they can reduce their food bill by 35 to 45 percent. All of these things can happen in a marvelous way when a support system is in place that then reinforces positive behavior.”

### **The Community as Support Agent**

Diehl continued, "CHIP promotes a social-ecological model for health, where better health is brought to entire communities and where total system transformation becomes the ultimate goal. The residential group approach to behavior change, offering two- to four-week residential group programs, do very well incorporating all the classical behavioral modification strategies. They do give participants a sense of hope. But when participants leave these controlled and protective environments and come home, they face the same refrigerator, the same friends, and the same fast food restaurants. At once, they find themselves in a situation where, away from their support group, newly acquired health-promoting behaviors are challenged, which are then subject to deterioration and decay. With CHIP we promote a social-ecological model where we take the message of good health into the community in such a way that we facilitate cultural change and transformation. This brings a supportive mentality to the entire community."

"To start, we go into a community or into a corporate setting with the goal of enrolling at least 10 percent of the population into our health promotion program. This is a 40-hour educational process that involves contracting, goal setting, reinforcement, affirmation, recognition, etc. and it relates to choices people begin to make. It's not unlike the residential program, but in this model the support becomes widespread, with a sizable portion of the community or worksite taking part in the program. This group of people, once educated, becomes a 'counterweight' to the culture at-large, a culture which is largely manipulated by marketing messages that say, 'Eat, drink, and be merry, and tomorrow some physician will take care of you.'"

"As this 'counterweight' evolves, this nucleus of people begins to understand what it takes to lead a healthy lifestyle. They begin to understand that they can indeed make better choices to improve health and longevity and act upon them, even in a manipulative system. As these people (often community and thought leaders) change their behavior, they themselves become markers of effective change, and influence others as role models in the community. Thus, they themselves become behavioral change agents. For instance, in Rockford, Ill.- a community of 150,000 - we now have more than 25 restaurants featuring at least five CHIP approved menus. These restaurants proudly display their CHIP stickers in their windows. They do this because CHIP participants are impacting the economic power base in the community. When these CHIPers go out to eat, they expect to eat healthy food. As restaurants provide these healthier foods, they meet the needs of their CHIP customers and benefit both economically and in good will. That's the ecological model in action. It's exciting, and it's what we need in America today."

### **A Grassroots Approach to Changing Health Behaviors**

CHIP seeks to change the healthcare system by affecting widespread cultural transformation, and adding a sense of community to the behavior change process. "One thing is for sure, the healthcare paradigm we've been using for the past several decades in dealing with the chronic diseases - and accounting for over 75 percent of our healthcare cost - is no longer cost effective. Our medical system is among the champions when it comes to diagnosing and taking care of emergency procedures, acute care and infectious diseases. But when it comes to the chronic diseases, that are largely related to cultural issues and lifestyle choices, then we have to be better than diagnosing the ill, matching it with a pill and sending people home with a bill. America can no longer afford to operate under this flawed paradigm, neither as individuals, corporations and organizations, nor as a government. What we need is a system that advocates intelligent, responsible self-care. We need a new paradigm that encourages medical self-responsibility and preventive care, now often referred to as Lifestyle Medicine - bringing together the sciences of medicine and public health."

Diehl is enthusiastic about the number of physicians recognizing how the CHIP program and its educational content can help them to better take care of their patients. "To truly impact health status, to improve lives, and to reduce healthcare costs, we've got to embrace the ecological model. The bottom line is that it really does 'take a village' to affect and sustain change. It's this model that offers the greatest opportunity of putting 'health' back into healthcare. It's a lifestyle medicine model, that is educationally and lifestyle centered, and uses affordable, time-honored, and interactive approaches. By engaging entire communities including worksites, schools, healthcare providers, faith communities, and food service providers in this new healthcare model, I believe we can bring about an entire system transformation-a

transformation where our culture will encourage positive health choices instead of negative ones. When this happens, the effects will be profound and far-reaching for every aspect of society.”

At present, CHIP programs are not reimbursed by health insurance companies. “Not yet,” says Diehl. “That too is integral to a ‘new’ healthcare model.”

### **Corporate Health**

“Making the case for good health on the corporate level is equally important and all about doing good business,” Diehl notes. “I tell business leaders that staying competitive in the North American market demands a throttling of the cost of healthcare, which often cuts deeply into corporate profits. This applies even more importantly to the global competition. It will become increasingly difficult to compete in international markets since other countries, especially those in Asia, have not yet developed the so-called Western-lifestyle diseases. Their workforce is still healthier and more productive and the healthcare costs generated by the people who make their products are considerably lower. But the westernization of their diet and lifestyle is leaving tracks on their diseases, and production costs are going up. In the meantime, our poor health is bankrupting us! We are now at a point where 17 percent of our gross domestic product is being devoted to medical care -that’s close to \$9,000 per man, woman and child. Even worse, 97 percent of that income is devoted to reactive care - care that is administered only after an individual becomes ill.”

Diehl educates and inspires people in organizational environments by offering: CHIP FastTrack, an intensive introduction to the background of the CHIP program including the science, epidemiology, current research, and underlying concepts for personal and organizational health transformation. This program is held in two half-day sessions and is designed to engage community leaders from worksites, faith communities, schools, medical institutions, government, chambers of commerce, and social service organizations. CHIP MedTrack, an eight-hour intensive workshop for health professionals delineating the science of lifestyle medicine and the role of therapeutic nutrition and lifestyle (for CME credit). CHIP FCTP (Facilitator Certification Training Program), an intensive three-day workshop designed to empower organizations to implement the CHIP Video Program within their organization for employees, families and retirees. CHIP Foundation, a non-profit foundation under the auspices of the Community Foundation of Northern Illinois (a 501c3). The Foundation was established to receive philanthropic gifts and legacy donations to continue the work of CHIP as a “community health transformation” template in schools for children and in underserved and disadvantaged communities.

CHIP results have been published in numerous scientific articles in peer-reviewed medical journals, including the American Journal of Cardiology, the Journal of the American Dietetic Association, and Preventive Medicine. CHIP is endorsed by the Physicians’ Committee for Responsible Medicine (PCRM), the Center for Science in the Public Interest (CSPI), and the International Nutrition Research Foundation.