Farmers as FARMacies FLAVORx Expands

By Michelle Koch



Fancie Randolph

Prescriptions for peppers, berries and peas? Summer 2017 will be the second run of FLAVORx, when Emerald physicians prescribe freshly harvested vegetables and fruit as part of a multi-faceted approach to increase patient wellness. "The very act of writing it down is tremendously powerful," says Dr. Kumara Sidhartha, Medical Director of Emerald.

FLAVORx seeks to boost the existing power of that tool by combining it with nutritional knowledge, shopping experiences and cooking instruction done in a collective environment. Dr. Sidhartha, together with the Emerald Wellness Board, had long considered initiating a program based on eating plant-based meals. He says, "Science clearly shows that eating a diet dominated by vegetables improves health tremendously."

Unbeknownst to him, Francie Randolph, Director of the non-profit Sustainable CAPE (Center for Agriculture Preservation and Education), was building momentum towards a similar goal. Unlike Sidhartha's concept, which grew from a medical vantage point, hers pivoted from longtime involvement with the land and nutrient dense food.

Sustainable CAPE supports local growing by fostering community-based farmers' markets, vegetable gardens, school and library programs, and an annual agricultural fair. Of Sustainable CAPE, which she created, Randolph says, "Our true strength lies in collaboration. Our individual programs work together to grow what I call 'a deeply-rooted food system', enabling connection, education, generosity, kindness, change and opportunity throughout our community and beyond." When a mutual friend introduced the pair, they found that their visions aligned, and together, with the help of many, FLAVORx was born.

Nationwide, the foods we choose to eat have contributed to the chronic conditions which are the leading causes of illness and death today. Sidhartha says, "Most disease has obesity as it's root cause. Diabetes, heart disease, hypertension, arthritis, many cancers, are all

linked to poor dietary choices. All of these represent an enormous burden on our patients and our health care systems."

A practicing physician who trained in public health and nutrition at the University of Massachusetts, Sidhartha knows that access is often the challenge to individuals in achieving healthy behaviors. Through Sustainable CAPE's Farmers' Market Alliance, Randolph is already working at increasing nutrition incentives for SNAP and WIC recipients and senior coupon holders to be able to get more fresh local produce.

She and Sidhartha both understand the obstacles. Still, the two were shocked to find a recent survey ranked Barnstable County dead last in Massachusetts for food availability. Many Cape residents not only cannot afford fresh produce, but live more than ten miles from a grocery store or are off the grid of our limited public transport system to be able to reach farmers' markets.

FLAVORx 2016 was a homegrown initiative to address those challenges, designed from the ground up with a focus on the unique collaboration of many entities: Emerald Physicians, Sustainable CAPE, local farmers, registered dietitian Nicole Cormier, supportive volunteers, the Orleans Farmers' Market and staff, and a Boston University student doing field work in public health.

Seeking to create an experience that influenced more than food cost, the project considered transportation, nutritional knowledge, recipes and food preparation. Sidhartha says, "Knowing that access to locally grown fruits and vegetables on the Cape is difficult, if we reduced those barriers, would that translate to eating more produce and if so, would we objectively be able to measure better health?"

Initially, the complete FLAVORx program underwent approval by the Cape Cod Hospital review board as being ethically sound and without harm to participants. Next, Randolph and Sidhartha rolled up their sleeves to rally the financial backing that would set FLAVORx in motion. According to Randolph, "We are tremendously grateful for the commitment and contributions of Cape Cod Healthcare, The Cape

Cod Five Cents Savings Bank, The Cape Cod Foundation, many private individuals, plus the support of Gus Schumacher, Founding Board Chair of Wholesome Wave, in developing our vision for this collaboration."

Developed as a blind study, the selected individuals knew in advance that they would be assigned randomly to either of two categories: the treatment group receiving \$30/week in tokens to cover produce prescriptions, or the comparison group, getting gas cards of equal value.

Helen Grimm, nurse at the Truro Central School, was the Pilot Coordinator. Randolph says, "She was our boots on the ground, keeping farmers abreast of the program's parameters, and it went off without a hitch."



Gus Schumacher, Founding Board Chair at Wholesome Wave; Francie Randolph, Director of Sustainable CAPE; and Dr. Kumara Sidhartha, Medical Director of Emerald Physicians.

Like other national fruit and vegetable programs currently running, body weight was tracked, but FLAVORx excelled in the depth of data it collected, supplementing with more robust measurements including BMI, blood analysis of glucose and cholesterol levels, and other tests.

In post trial surveys, clients commented on the positivity of the overall market experience itself, how much they valued the welcoming market, its manager, Elise Waldron, and longtime market organizer, Gretel Norgeot. Given wooden tokens stipulated as only to be used for fruits and vegetables, participants were introduced to local farmers, while they decided how to fill their shopping bags. Some hung out to enjoy the live tunes.

Now that each participant had selected a sack of veggies, some chosen for the first time, would participants actually cook and eat them? Did they know baby white Hakurei turnips, a sweet little root crop, can be sliced and tossed into salads? That slivered green cabbage makes a lovely side sautéed with apples and a grind of fresh nutmeg? That heirloom tomatoes may look gnarly, but taste scrumptious? And what to do with this celeriac, please?

Enter Nicole Cormier, owner of Delicious Living Nutrition, Inc., a nutrition counseling practice, and co-owner of the cold-pressed juice company, The Local Juice & Pantry. Passionate about local eating, she introduced participants to seasonal vegetables, herbs and fruits. Demonstrating how simple and tasty healthful cooking can be when each ingredient is selected at its peak flavor, Cormier heightened the group's comfort level in the kitchen, meeting with them four times.

Everyone in the trial, not just those who had scored the produce tokens, received the nutrition lessons, cooking experiences and recipes, plus tasted samples of the week's fare. Cormier says, "The FLAVORx program is an opportunity to connect our community to the benefits of eating locally, supporting our farms and adapting the concept of using food as medicine."

After its ten-week stretch, which finished up just before

Thanksgiving, the 2016 FLAVORx experiment was analyzed. Results were overwhelmingly positive, with weight loss, lower blood pressure readings and other improved numbers. In a post trial survey, over 80% of all participants graded the program as excellent or very good without a single negative comment.

"I was there at the market when the first individual arrived for the program. He redeemed his prescription and he was so excited. I saw him again at the conclusion, and he remarked, 'It was simply life changing,'" says Randolph. "I just teared up."

Gus Schumacher, of the nonprofit Wholesome Wave, of which Sustainable CAPE is a part, says, "I continue to be impressed with the innovative

links between Cape Cod Health Care, Emerald Physicians, Sustainable CAPE and Cape Cod Five, all working in partnership to improve health and diets and reduce health care costs on the Cape.

"This FLAVORx project piloted on Cape Cod by Dr. Sidhartha and Francie Randolph is one of the most data-intensive fruit and vegetable prescription projects run to date. The biomarkers measured, when scaled, should lead to important results and could well have national repercussions."

Sidhartha is energized about where this initial study of eighteen individuals may lead. The promising results give him hope that programs like these can evolve to where third-party payers will see that incentivizing behavior can improve health. He says, "Our outcomes have shown that physicians can use existing processes to prescribe wellness. Now we are scaling it up."

For 2017, FLAVORx is an option for those Massachusetts State Health insured patients of Emerald Physicians who have the marker of obesity. This time there will be three food hubs Capewide: Cape Cod Organic Farm in Barnstable, Falmouth Farmers' Market and Orleans Farmers' Market. Strategizing fundraising efforts now, Randolph and Sidhartha's goal is to ramp up funds for 100 individuals.

Thrilled to soon begin with a second larger pilot group at Emerald, Sidhartha is enthusiastic when asked if his acronym, FLAVORx, has meaning other than the wordplay between Rx and eating delicious just-picked local foods. He pauses, grins widely and says, "FLAVORx stands for Farms and Local Health Alliance for Fruit and Vegetables in an Outcome Based Rx Program."

Quite a nutritious mouthful.



Writer Michelle Koch raises flowers and bakes for farmers' markets as Sea Turtle Farm. Koch lives in Orleans with daughters Chloe & Camille sometimes, and Woof all the time. She loves knowing who grows her food.