Fruit and vegetables provide fiber, vitamins, minerals, and phytochemicals, and displace less healthy food options in the diet. Yet, Americans’ consumption of fruits and vegetables falls very short of recommendations.

The federal government’s Healthy People 2020 objectives express this shortfall through meticulous advice: It suggests Americans raise fruit intake from 0.53 cups per thousand calories to a target of 0.90 cups, and raise vegetable intake from 0.77 cups per thousand calories to a target of 1.14 cups. The government’s MyPlate graphical guidance makes the same broad point with a more colorful flourish: It suggests we strive to fill half our dinner plate with fruits and vegetables. Americans rarely do so when we cook at home, and, on average, consume even fewer fruits and vegetables when we eat out.

Despite clear health benefits of consumption, the trends for fruit and vegetable production are unfavorable. According to the U.S. Department of Agriculture’s (USDA) Loss-Adjusted Food Availability (LAFA) data series for the most recently available two decades, from 1993 to 2012, per capita daily fruit availability fell by 5.6 ounces to 4.7 ounces, and per capita daily vegetable availability fell by 7.7 ounces to 7.1 ounces. The reasons behind the trends relate to both supply and demand. As industrialization and technology have boosted productivity in recent decades, U.S. food in general has become more affordable. However, these gains in productivity and subsequent reductions in price have been more rapid in other food sectors than in fruit and vegetable production, which remains comparatively labor-intensive. The Consumer Price Index (CPI) for fruits and vegetables has risen more rapidly than the corresponding indices for other food groups.

It is widely believed that farm subsidies for corn and soybeans have led people to consume far too much unhealthy grains, sweeteners, meats, and processed foods at the expense of fruits and vegetables. Subsidies for fruits and vegetables are indeed far lower than those for grains and soybeans, and the 2014 Farm Bill retained a small but unwise restriction that discourages fruit and vegetable production on land that qualifies for federal subsidies. Recent research suggests that this restriction may have a significant impact on fruit and vegetable production in some regions. The fruit and vegetable industries do benefit from government programs that provide conservation payments, marketing and grading services, agronomic research, subsidized water inputs, and demand promotion through school meal programs. And a new pilot program, Whole-Farm Revenue Protection, may make it more feasible for fruit and vegetable growers to take advantage of federal crop insurance programs. Overall, farm policy is one, but not the only, reason for low fruit and vegetable consumption. Aside from the significant issue of the high cost of fresh produce, other potential reasons for low consumption are that most of the produce sold in supermarkets has been farmed for yield, uniformity, and safe transport, rather than flavor, along with the widespread use of cooking techniques (such as steaming rather than roasting or searing) that do not offer consumers the full taste potential of fruit and vegetable dishes.

In general, the greenhouse gas emissions associated with producing fruits and vegetables are far lower than for animal-based foods. A few notable exceptions are imports by air freight and water quality, are strongly dependent on the location of production. While “locally grown” produce may have important socio-economic benefits, it is not necessarily lower in environmental impact. Appropriate choices of fruits and vegetables offer chefs an opportunity to encourage healthy eating and environmental sustainability together, while also offering seasonal flavor experiences.

In recent years, the dramatic growth of farmers’ markets, farm-to-school programs, food hubs, and other food sourcing innovations have enhanced public attention to fruits and vegetables. This growth has been rapid, but it’s important to realize that the base that growth has started from is relatively small. The majority of fruits and vegetables purchased in the U.S. are still from supermarkets, superstores, and restaurants, and most of these businesses use modern national and international supply chains (as opposed to local or regional ones). So while new innovations in local production and distribution are encouraging, these conventional food chains remain an important source of healthy fruits and vegetables.

Federal, state, and local governments have increased their promotion of fruits and vegetables using many tools: the federal fresh fruit and vegetable program in school meals programs, the fruit and vegetable voucher offered through the Women, Infants, and Children (WIC) program, a Healthy Incentives Pilot (HIP) to test a financial incentive for fruits and vegetables, the new federal Food Insecurity Nutrition Incentive (FINI) program, and a cornucopia of local farmers’ market incentive programs.

RECOMMENDATIONS:
Federal and state governments should encourage and support private-sector initiatives to expand fruit and vegetable production in non-traditional areas with the right growing conditions. As a small but symbolically important step, the federal government should remove the planting restriction for fruits and vegetables on land that receives federal subsidies. Federal, state, and local governments should continue to investigate and evaluate innovative programs to promote fruit and vegetable consumption through social marketing and financial incentives.

In the private sector, manufacturers and retailers can continue their long history of product innovations to encourage increased fruit and vegetable production. Restaurants at every scale can continue their efforts to enhance the share-of-plate devoted to fruits and vegetables. Perhaps most importantly, chefs and food industry leaders can lure consumers to fruits and vegetables through taste; preparing and serving fruits and vegetables in ways that heighten their visual appeal and flavor profile. Many chefs and even high-volume chains around the country have recently been elevating the status of fruits and vegetables on their menus, and collectively raising produce’s profile in the restaurant world. But more emphasis is needed, as chefs and menu decision makers are powerful influencers when it comes to changing cultural perceptions and boosting consumers’ willingness to try new foods.

SCORE: 3
There has been an enormous amount of recent public interest and governmental initiative around promoting fruit and vegetable consumption. But these efforts have not yet achieved sufficient scale, and they are stalled by production restrictions and the associated high produce prices. As a result, long-term trends have not been reversed, and fruit and vegetable consumption still falls to meet recommended levels.

IN SUMMARY:
• Despite well-documented evidence of health benefits and strong urging from the federal government, consumption of fruits and vegetables remains far below recommended levels.
• Despite increased yield, efficiency, and lower prices for many sectors of food production, fruit and vegetable farmers receive fewer subsidies and face restrictions around what land can be used to grow their crops; as a result, production and overall availability remain low, and prices remain high.
• Innovative food sourcing initiatives and significant increases in government programs to incentivize produce consumption are encouraging, yet still only operating at relatively small scale.