Special Feature

Diets for a Complex World: The Search for Wholeness

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At the beginning of 2019, the EAT–Lancet Commission published Food in the Anthropocene, a consideration of healthy diets from sustainable food systems.[1] The authors observed that "A healthy diet should optimize health, defined broadly as being a state of complete physical, mental and social well-being and not merely the absence of disease,"[2] emphasizing that the scientific targets for the healthy diets advocated in the report were "based on the extensive literature on foods, dietary patterns and health outcomes."

The report considers in detail the relationship between the construction of diets and the production of food. "How food is produced, what is consumed, and how much is lost or wasted all heavily shape the health of both people and planet. The EAT–Lancet Commission presents an integrated global framework and for the first time, aims to provide quantitative scientific targets for healthy diets and sustainable food production. The Commission shows that feeding 10 billion people a healthy diet within safe planetary boundaries for food production by 2050 is both possible and necessary. The data are both sufficient and strong enough to warrant immediate action."[2]

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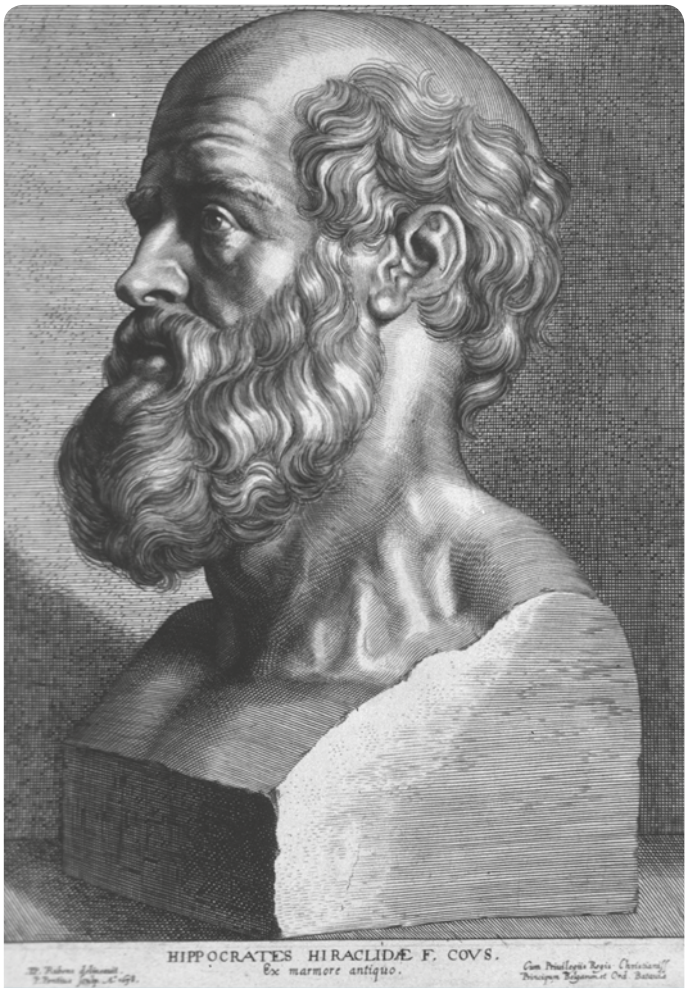
Significantly, the words *diet* and *data* appear in the same paragraph here. Any effective approach to fixing the world's food systems issues and meeting the nutritional needs of the burgeoning global population must be evidence-based and data-driven. Equally significantly, the report advocates diets that support "a state of complete physical, mental and social well-being and not merely the absence of disease". Diet, data and wellbeing in its broadest sense are brought together in one line of thought. If this appears absolutely up to the minute, it is – in the sense that the Ancient Greeks were absolutely up to the minute.



The Greek physician Hippocrates of Kos (c.460–c.370 BC), often referred to as "The Father of Medicine;" engraving by Peter Paul Rubens, 1683

Living within the "great chain of being"

In a 2005 article published in Public Health Nutrition, Geoffrey Cannon of the World Health Policy Forum writes: "From the beginnings of recorded history and in Europe up to and beyond the mediaeval era, teaching and practice on food, nutrition and health have been deep and broad. In what is now Europe, Pythagoras, Heraclitus, Alcmaeon, Hippocrates, Celsus, Dioscorides, Plotinus, Pliny the Elder, Plutarch and Porphyry, as well as other Greek, Roman and other philosophers, physicians and teachers who laid foundations for Western science and medicine, developed inductive and deductive systems of thinking about food and health between 600 BCE and 300 CE." Cannon continues: "The flowering of Arab culture between the eighth and the twelfth centuries CE included comparable teachings of Rhazes, Ibn Botlân, Ibn Sina Abu Ali Al Husain (Avicenna) and Moses Maimonides, Jewish physician to Salah al-Din (Saladin); these also became synthesised in 'The Regime of Health' treatise of the first major medical school in Europe at Salerno, published as from 1100 CE and one of the first books to be printed … The Greek term *diaita* [δίαιτα] means 'way of life' or 'way of being', and the term 'diet' was used in this sense in treatises and handbooks until recent times in Europe. Human health and welfare are seen ecologically, in the context of the whole living and physical world, the 'great chain of being.'" [3]

Cannon's words, published in 2005, are not a million miles from the EAT–Lancet Commission when it states that "The global adoption of healthy diets from sustainable food systems would safeguard our planet and improve the health of billions."[2] Have we come full circle in the past 2,000 years, pushing the planet to the edge of what it can bear, only to realize what was known scores of generations ago? And what went wrong in the interim?

Dietetic medicine

In Ancient Greek times, the link between diet in its broadest sense and health in its profoundest sense was clearly recognized. Although recent research by Diana Cardenas[4] suggests that Hippocrates' famous injunction "Let food be thy medicine and thy medicine be thy food" is in fact apocryphal, dietary intake was central to the concept of Hippocratic medicine. "The properties of foods were meticulously analyzed in the treatise On Regimen,"[5] states Cardenas: "Physicians were then able to prescribe a detailed food regimen to patients based on their individual nature, activity, age, season, etc. Thus it is considered that medicine in the Hippocratic era was in fact mainly a dietetic medicine, not a pharmacological or surgical medicine." This sounds preciously close to a cross between today's concepts of personalized nutrition and personalized health – and even more so when Hippocrates observes that "Eating alone will not keep a man well; he must also take exercise. For food and exercise, while possessing opposite qualities, yet work together to produce health." [6]

The ruins of the monastery of Disibodenberg in Rhineland-Palatinate, Germany, where Hildegard von Bingen lived and worked for 39 years

> "Ancient Greek physicians were able to prescribe a detailed food regimen to patients based on their individual nature"

A similarly holistic view of the relationship between diet and health was expressed by the Benedictine abbess and polymath Hildegard von Bingen, who lived in Germany from 1098 to 1179, and is today widely considered as the founder of scientific natural history in Germany and the country's first nutritional theorist. While not all contemporary physicians or dieticians would agree with some of the detail of Hildegard's teachings, there is a strong revival of interest in her thinking today, especially in the German-speaking world. Her emphasis on balance and moderation strikes a contemporary chord, and few nutritionists today would argue with her insistence on the importance of whole grains, fruits and vegetables in the diet, the value of cooking foods carefully so as to preserve their nutritional content, and the vital role of gut health, as well as of emotional wellbeing.[7] "When the body and the soul function in excellent harmony," she wrote, "they receive the supreme recompense of joy and health."[8]

"The laboratory of the household"

Although the country is not famed for its culinary traditions, Britain in the 19th century produced one of the first great modern cooking writers, in the form of Isabella Beeton (1836–65), better known as Mrs Beeton. Although her primary focus was domestic science rather than nutrition, her first book, *Mrs Beeton's Book*

Isabella Beeton, née Mayson (1836–65), photographed in about 1854

of Household Management, makes a link between food preparation and physical and mental wellbeing that fits well with today's discourse of food systems, food environments and food choices: "The kitchen is the great laboratory of the household, and much of the 'weal and woe' as far as regards bodily health, depends on the nature of the preparations concocted within its walls."[9] Mrs Beeton also appears to have a completely contemporary understanding of the importance of avoiding food waste when she writes: "Frugality and economy are virtues without which no household can prosper. The necessity of economy should be evident to every one, whether in possession of an income barely sufficient for a family's requirements, or of a large fortune which seems to put financial adversity out of the question. We must always remember that to manage well on a small income is highly creditable … Economy and frugality must never, however, be allowed to degenerate into meanness."[10]

If Mrs Beeton's expressed care for bodily health may make her seem at least a distant cousin of Hildegard von Bingen, a telltale choice of word places her firmly in the modern era, however. It is the word 'laboratory' – a word that would have had a very modern ring to the Victorians, who (despite our notions to the contrary) loved to think of themselves as being ultramodern. It is a word intimately associated with notions of science, technology and progress. And it was precisely during Mrs Beeton's career as a cookery author that – if we are to accept the analysis of Geoffrey Cannon – the holistic relationship between food and health was challenged in ways that were to have unexpected and deleterious effects.

The human machine and the machine of state

"In post-mediaeval and Renaissance Europe," writes Cannon, speaking of the century from 1850 to 1950, "and then in the USA and other technologically developing countries, human beings and all other living things became identified as marvellous machines, by analogy with clocks, pumps, trains, or other forms of engineering. Study of life itself, and of consciousness and vitality, became seen as metaphysical. Aspects of humanity other than the physical were excluded by the rising sciences, within the context of a dominant ideology based on principles of political and economic power and growth."[3] (This development is analogous to the trend in our own times to compare human beings with computers – 'hardwired' to behave in this way or that but lacking 'the bandwidth' to take in excessive quantities of information.) "The science of nutrition in its first period, roughly between 1850 and 1950," continues Cannon, "was harnessed by governments of the great European powers and the USA to increase the yield of food from plants and animals, and to build up their human resources, when more and more factory workers and foot soldiers were needed to increase national advantage and to service industrialisation and imperialism. In the most powerful European countries, philanthropists and politicians were united in their interest in nutrition. Both were preoccupied with the condition of the poor, partly for fear of uprisings of enraged ideologues and under-classes." He concludes: "The overall objectives of successive governments were internal social security, competitive advantage over other industrialised nations, and world domination. Consequent food and nutrition policies included legal, fiscal, regulatory and other methods affecting price, availability and quality. They worked."

> "The science of nutrition between 1850 and 1950 was harnessed by the great European powers and the USA to increase the yield of food, and to build up their human resources"

A problem solved

And then, in Cannon's view, "the genie of nutrition was put back into the bottle."[3] He attributes this to a number of factors. The first – and perhaps, from today's perspective, the most surprising – was the view that everything that there was to discover about nutrition had been discovered. Writing in the late 1930s, the leading British nutritionist Sir Jack Drummond stated that "There is no problem of nutrition in Britain today. … The position is perfectly clear-cut."[11] The experience of the Second World War – in which Drummond masterminded

the rationing policy that kept Britain from starvation – served only to intensify this view. Nutrition was understood; what was difficult was to supply it in sufficient quantities to those who needed it. Cannon goes on to list another four main reasons for the decline in nutritional science between 1950 and 2000: oligarchy (maintenance of government control, international agency unaccountability), cacophony (unexplained policy U-turns, marketing and advertising babble), technology (accelerating specialism, corralling of science) and ideology (let the consumer beware, Band Aid).

Diets for a complex world

Whether or not one agrees with the detail of Cannon's analysis, it is hard not to conclude that the position today is anything but clear cut. The rapid advances in genomics, nutrition science and technology made during the past two decades are offering deep insights into the relationship between diet and noncommunicable diseases in particular; hidden hunger, diabesity and the double burden of malnutrition have become key terms in the discourse of nutrition; and food systems are perceived as having an importance, and also a complexity, that was underestimated until relatively recently. The problems appear to grow all around us, even as the potential solutions to them multiply. Perhaps it is no surprise that the West has spawned so many new diets in the past few decades, from the Atkins Diet through the Dukan and the Paleo Diets to the Weight Watchers Diet. With their emphasis on the exclusion of certain foods and behaviors and their primary focus on weight loss, many diets in the modern sense have the attraction of offering a degree of simplification and the promise of purity in a complex, fast-moving and over-busy world. Others, however – most notably the Mediterranean Diet[12] first identified by the American nutritionist Ancel Keys in the 1950s, and its much younger cousin the Nordic Diet[13] – do deliver scientifically proven health benefits through reducing the risk of metabolic syndrome and noncommunicable diseases such as cancer and cardiovascular disease.

Most modern diets are not, however, diets in the sense that Hippocrates would have understood the term. Nor are they diets in the sense proposed by the EAT–Lancet Commission. Writing in Vol. 30(2) 2016 of this magazine, Klaus Kraemer observed: "I do not think that a discussion that focuses on diet alone, or one that fails to recognize that food and nutrition security encompasses far more than just the regular consumption of food and drink, genuinely helps us address the complex challenges of malnutrition in all its forms across the world."[14]

Nutrition is about much more than biochemistry and energy balance – and even as our scientific understanding of biochemical processes in the body reaches new levels of sophistication in the age of omics, this becomes ever more apparent. Perhaps what the world needs at this juncture is a reappropriation of the Ancient Greek concept of *diata* in its widest sense, an understanding that is both physical and metaphysical, and an exploration of new ways of being in which the simple mystery of food plays a central part.

Many modern diets focus primarily on weight loss and are not a regimen for living in the Ancient Greek sense

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