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Volume 2, Number 5, May 2011
Journal of the World Public Health Nutrition Association
Published monthly at www.wphna.org

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Commentary. The big issue is ultra-processing

In praise of the shared meal



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Cite as: Monteiro C. The big issue is ultra-processing. In praise of the shared meal. [Commentary]. *World Nutrition* May 2011, **2**, 5: 235-246.

Introduction



On 29 April *The Moscow Declaration* (1) was issued, from the 'First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control'. WHO was the lead UN agency, with many national ministers of health present. Russian prime minister Vladimir Putin put in an appearance. The meeting was preliminary to the UN Summit on prevention and control of chronic diseases, to be held at UN headquarters in New York this September. Held at prime ministerial and head of state level, this will involve other relevant UN agencies, with a powerful presence from the immensely profitable transnational food and drink industry, also known as Big Snack.

Preamble III to the *Declaration* rightly states: 'Policies that address the behavioural, social, economic and environmental factors associated with NCDs should be rapidly and fully implemented'. Preamble VI rightly states: 'A paradigm shift is imperative in dealing with NCD challenges, as NCDs are caused not only by biomedical factors, but also caused or strongly influenced by behavioural, environmental, social and economic factors'. These are fine phrases, made with good intentions.

The documents associated with the Moscow meeting include many mentions of nutrients, and some of foods, but no mention of meals. It is as if meals do not exist. This commentary asserts that food and nutrition policies and programmes that overlook or ignore meals, and so in effect take humans out of society and isolate them as suitable individual cases for quasi-clinical treatment – as practically all those agreed and enacted since the 1950s have done – are bound to fail. The needed paradigm shift is to think and act in terms of the social including cultural, economic and environmental significance, as well as the biological benefits, of the main forms in which foods and nutrients are consumed. These are – or should be – shared meals.

A meal is not merely a substantial amount of food and drink consumed on one occasion. Meals are meant as social occasions. In societies whose food systems and dietary patterns remain at least partly traditional, in which food systems are secure and so people normally have enough to eat, such everyday meals also characteristically make nutritional sense, given available resources.

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What has been and still in many countries remains the common custom of breakfast, lunch and dinner (or supper), typically consumed with other family or household members or guests or friends or colleagues, is just one pattern of mealtimes, adapted to societies where at least one member of the family or group works away from home during the day. In any given society, what is consumed at specific meals, such as breakfast, or at more substantial meals such as weekend lunches with invited family or friends, usually has common features. The grandest meals, such as in the US at Thanksgiving, or at weddings or festivals, are highly ritualised, with their most conspicuous items or dishes fixed by custom. Festive meals have always had a ritual aspect, as recorded in the New Testament where the rejoicing parents welcome back their prodigal son by killing (and preparing, cooking and serving) the fatted calf.

Shared meals are a defining characteristic of human society. Even in situations where people commonly eat meals by themselves, there is likely to be a sense of sharing, as felt within a family home, or even in a restaurant. Until very recently in history it was very unusual for people anywhere not to eat meals, or to eat in isolation from one another, except in extreme situations such as solitary journeys. In a real sense, countries and population groups within which meals are no longer shared, or in which meals in a usual sense cease to be consumed, cease to be societies.

But now, as meals become displaced by ready-to-heat or ready-to-eat ultra-processed snacks, at first in the US and now in other countries, the meal is disappearing. This catastrophe helps to explain the sense of alienation and isolation commonly felt by people in such countries. But it is not only a social phenomenon. In general meals, especially when they have traditional aspects, are nutritionally far superior to processed snacks and other 'fast' or convenience ultra-processed products (2,3).

Serious attempts to improve the nutritional status of any population, and thus protect against disease and promote well-being, should not focus on nutrients or foods. They need to begin by appreciating, preserving and restoring meals, made by preparing and cooking fresh and minimally processed foods together with culinary ingredients, as has been normal in all societies throughout human history.

My previous *WN* commentaries have focused on what is wrong with ultra-processed products (4).This and next month's commentary focus on what is right about real meals. I am not recommending that everybody should only consume fresh and minimally processed food. Not at all. What I am recommending is that food systems and supplies, and therefore diets from population to personal level, should contain a lot less degraded energy-dense fatty, sugary or salty, ultra-processed products than is the case in all high-income countries and now many if not most lower-income countries. Next month I will include information on the nutritional and other qualities of meals in contrast with ultra-processed products.

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Discussion

Box 1
Meals: My view

Obesity, which until the middle of the last century was mostly an affliction of some wealthy people in economically rich countries and settings, has now became an out-of-control pandemic throughout the world, together with big increases in diseases whose causes are in common with those of obesity, such as diabetes, hypertension, cardiovascular disease, and various cancers. Practically all explanations of this public health disaster miss the point. The key reason for population obesity, together with increasingly sedentary ways of life, is the displacement of meals, made from fresh or minimally processed foods together with culinary ingredients, by energy-dense ultra-processed fatty, sugary or salty ready-to-heat or ready-to-eat ultra-processed dishes, and 'fast', 'convenience' and snack products (3-5).

From the biological and metabolic point of view, meals prepared from a combination of fresh or minimally processed foods and culinary ingredients, which include fats, oils, sugars and sauces, are relatively healthy. They are comparatively nutrient-dense, containing more essential fats, balanced proteins, dietary fibre, vitamins, minerals, and other bioactive compounds, and less hard fats, sugar, salt and chemical additives, than ultra-processed products (3-5). I will show this in some more detail in next month's commentary.

Physically active populations, communities and families whose diets are mostly made up from meals, especially when these have a tried and tested traditional basis, are therefore relatively likely to be protected against overweight and obesity, and common chronic diseases. By contrast, populations much or most of whose food is in the form of pre-prepared processed dishes and snacks, are relatively likely to become obese and diseased. This is obvious and evident. But to the best of my knowledge, the significance of shared meals as protective against disease as well as being intrinsic to well-being, has never been emphasised in the modern scientific literature. Here and now it is, and I trust from now on it will be.

Personal advice? If you want to stay healthy, become and stay active, and take your time preparing, cooking and enjoying meals shared with family, friends, guests and colleagues.

An extremely short history of meals

Humans are social creatures, and the story of humans in society, and of the rise of human civilisation, is also the story of the meal. In this respect humans are no different from birds or animals in nature, whose nests or lairs are also the places in

which the parents feed their young. Herd animals in nature eat and drink together, so that their food becomes meals, the group is protected, and the young learn. Lions and wolves hunt and eat together. Bees and monkeys gather material for food, or food itself, and share it. This is also human nature.

Humans living in nature

The remains of ancient human dwellings and settlements, when these are substantial, show communities centred on dwellings centred on where meals were prepared and consumed. Claude Levi-Strauss points out that roasting, which followed the control of fire, is characteristic of societies where food is hunted, whereas boiling in water is a more sophisticated form of meal preparation, because it requires a pot. 'The roasted is on the side of nature, the boiled is on the side of culture' (5).

The picture below (left) shows the mother of an African family, in this case displaced in a refugee camp, preserving the ancient tradition of boiling available foodstuffs, traditionally served in bowls. The picture below (right) shows how young people in the US and some other countries eat now. Here the containers are not for the preparation of meals, but are machines for vending ultra-processed snacks.



For African families living without money, an iron cooking pot is a precious possession (left). US students get snacks from vending machines (right).

The rise of civilisation

The great stews of the world, including the French *cassoulet*, *ratatouille* and *bouillabaisse*, making imaginative use of available ingredients including scraps and leftovers, developed over hundreds or even thousands of years as more sophisticated versions of one-pot cooking. The traditional Mediterranean diet (or 'eating pattern') (6), has a history of at least 4,000 years. It – or rather 'they', for there are many traditional Mediterranean culinary traditions – are misunderstood when analysed in terms of individual food groups, foods, or, worse, nutrients. All traditional cuisines

characteristically take the shape of meals. Within these, nutrients are balanced, as in the Mexican and Central American combination of corn with beans and squash, or the Brazilian rice and beans.

In her book on Eastern Mediterranean cooking (7) the Egyptian writer Claudia Roden, brought up in Egypt, who for many years has lived in London, evokes the social and cultural significance of meals. 'Friday night dinners at my parents, and gatherings of friends at my own home, have been opportunities to rejoice in our food... Each dish has filled our house in turn with the smells of the *Muski*, the Cairo market... They have conjured up memories of street vendors, bakeries and pastry shops, and of the brilliant colours and sounds of the markets'.

The picture below (left), also the cover picture of this issue of ***World Nutrition***, shows a traditional meal of the North-East Mediterranean, in Istanbul. This is a more sophisticated version of the African meal, in a land rich in a vast variety of crops and foods, but there are elements in common, notably sharing from the same bowls. The picture below (right) taken in the US in the early 1950s, shows the degeneration of the meal into a primitive 'tv dinner', in which people in superficial contact with one another watch television while consuming various pre-prepared snack items.



Real meals and tv dinners. Left, a family in Istanbul conversing as they share a traditional repast. Right, early 1950s US people snacking while watching tv

The Mediterranean and Latin tradition

In France, and in the Southern Mediterranean, the tradition of real meals is under threat, but survives. In the cities, executives often still seek to live close to their work, one reason being that they can then return to home for a family lunch and, when it is hot, a siesta. Alternatively, employees without the money to live near work, go out collectively for what may be a two-hour shared lunch, during which they get to know one another and make agreements.

Latin America, like the Catholic parts of Europe, largely remains a collective community- and family-based culture, within which the shared meal remains crucial. The first dietary guidelines prepared for Latin America were addressed to people not as individuals but as group members, on the grounds that 'the family eats from the same pot' (8). In my own country of Brazil, the personal recommendations in our official national dietary guidelines are addressed to community and family members, not to people as individuals (9). Even in the most cosmopolitan city of São Paulo, where I live and work, people usually go out of the office for lunch for over an hour. It is most uncommon to eat sandwiches or other fast food in the office at lunchtime.

The picture below (left) is of the Brazilian traditional *feijoada*, our equivalent of the *cassoulet*. In most parts of Brazil this remains the main Saturday weekend meal, to which friends and colleagues are invited. As with the traditional Mediterranean meal shown above, it is served in bowls, and in the pots of fired earth or iron in which the dishes are cooked. It consists of black beans simmered with various meats including offals, boiled rice, *farofa* (manioc flour toasted to a variety of regional recipes), *couve* (a type of kale or cabbage, shredded and stir-fried), slices of orange, and salad. This is weekend holiday food. During the week, much simpler meals of *arroz e feijão* (rice, and beans cooked with bits of meat, with some vegetables) are prepared at home, or else are available throughout the country in *per quilo* (per kilo) restaurants serving a variety of foods buffet-style, made up into meals by the customers, and priced by weight. Some of the best poems written in Brazil celebrate our traditional shared everyday and feast meals.

By contrast, only a satirical verse would commemorate what looks like a number of unhappy 'meals' being consumed in the picture below (right) by children in the back of a car, in a more technologically and economically 'developed' part of the world. A sense of isolation and preoccupation is palpable.



Brazilian traditional family meal of rice, beans, kale, meats, fruit, salad (left). Plastic packs of burgers, fries, cola drinks, eaten in mutual isolation (right).

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What went wrong in the US and UK

The United States of America and the United Kingdom are peculiar. In these countries there are ethnic cuisines and local food customs, but no ancient national or regional dietary patterns. In what is now the US, the original dietary traditions were those of the native Americans, who were exterminated, or else displaced, which from the cultural point of view amounts to much the same thing. In the UK, the native peasant classes were eliminated, by being driven into cities or overseas to the British colonies, whose native populations were also displaced.

In the US and the UK most of all, as an integral part of the Industrial Revolution, mechanisation of food systems took command (10). In general, food became increasingly degraded and cheapened. This is a curious phenomenon. Cheap versions of other products, such as automobiles, clothing and houses, have a place in the US and UK market, but most people when they have the money prefer premium-price versions. Food is the only common commodity where quality is identified in terms of convenience and cheapness. In general, in the US and UK for most people food has become a kind of fuel or chow, and cooking a type of art shown on television and in glossy books kept not in the kitchen but the living room. In US cities, catering started to become mass produced over a century ago. Claude Fischler quotes an astounded French observer writing in 1892: 'In New York nobody goes home in the middle of the day. They eat wherever they happen to be... In blue-collar restaurants, thousands of people eat standing up, with their hats on, all in a line, like horses in a stable' (11).

Later in the last century, farms in the US and UK typically became enormous, people (including those living in small towns and rural areas) lost the sense of where food comes from, a greatly increased proportion of women including mothers took paid jobs outside the home, packaged food became advertised in terms of its convenience and cheapness and even as part of women's liberation. Sales of cola drinks became colossal. Packets and portion sizes inflated. Food and drink production, manufacture, distribution and sale became concentrated in the hands of a small number of colossal companies (12). As from the 1960s, but with spectacular speed starting in the 1980s, production and consumption of 'fast' and 'convenience' ultra-processed products, of which the icon is the burger, took off.

This is now very well known (13) and there is no need to give any detail here. But in telling the story of the vast increase in energy-dense ultra-processed products and thus in obesity, at first most of all in the US, then the UK, then in many and now in most countries, one crucial point is everywhere overlooked. The process amounts to the replacement of the meal with the snack. In the US, and now in many other countries, shared meals are disappearing, and so is shared life, with all that implies.

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The end of the meal in the US – official

Last year the US government the latest *Dietary Guidelines for Americans* went on-line (6). These were issued in print on 27 April this year. The importance of nutrient-dense foods is emphasised. The value of various vegetarian dietary patterns is acknowledged. Americans are encouraged to consume a lot more vegetables, fruits and wholegrains, and a lot less saturated fat, salt, and also sugar. The Mediterranean and the DASH 'eating pattern' is commended. So is what is termed 'the social-ecological model'.

The *Guidelines* are recommendations of foods, addressed to individuals, as the textual analysis listed in Box 2 below shows. Meals are explicitly referred to just four times in the large-format 58 pages of main text, three times in the context of eating out, and once in the context of meals supplied to children at school. Perhaps in the US it is mere realism to acknowledge that the meal prepared and cooked to be shared at home, is practically extinct, and cannot be revived. The compilers of the *Guidelines* may have been conscious of this, given how often the word 'Americans' appears in the text.

Box 2

Meals at home in the US: Officially extinct

Words/terms/phrases Used in *2010 Dietary Guidelines for Americans* (1)	Number of times used
Society, groups, people	
Society	3
Public health	5
Public/ general public/ population	8
Population groups	11
Community/ies	12
Family/ies (always bracketed with 'individuals')	13 (2)
American/s (almost always 'Americans')	169
People/persons (in the sense of numbers of individuals)	30
Individual/s	78
Food systems/ supplies, diets, food preparation, meals, snacks	
Food systems, supplies	1
Culture	2
Traditional eating patterns (Mediterranean)	10
Traditional eating patterns (other, or unspecified)	5
Cooking/preparation	8
Meals	**4** (3)
Eating out/ restaurants	3
Snacks, snacking	2

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Origin, nature, type of foods	
Fresh food	1
Processing/ processed foods (always salt or meat)	6
Nutrient-dense	32
Calorie-dense	7
Food industry/business (usually as potential partners)	6
Fast food	5
Convenience food, junk food	0
Refining, refined foods (always grains)	21
Drying, canning, curing, freezing, baking, frying	1 (each)
Hydrogenation (trans fats)	8
Modification of food systems/ supplies/ dietary patterns	
Legislation	1
Taxation	0
Product pricing	0
Product reformulation	0
(Healthy) food/eating/activity/ patterns/ choices/ behaviors	62
(Healthy) lifestyle	7

(1) Including titles and sub-titles, but excluding graphics and tables, footnotes, appendices.
(2) For example: 'Ultimately, Americans make their own food and physical activity choices at the individual (and family) level'.
(3) The first two references are to eating out. 'When possible… share a meal, or take home part of the meal… or, instead of eating out, cook and eat more meals at home'. The fourth reference is to school food. 'Ensure that all meals and snacks sold and served in schools and childcare and early childhood settings are consistent with the Dietary Guidelines'.

What this analysis indicates, is that dietary recommendations coming from countries in which meals are disappearing, and where much or even most food is now mainly consumed – often in isolation – in the form of ready-to-heat or ready-to-eat energy-dense, ultra-processed, and fatty, sugary or salty dishes or snacks, should not be 'exported' to countries in which the meal survives. Specifically, governments and their agencies, and relevant health professional organisations, in middle- and low-income countries, should not use dietary recommendations issued in the US or the UK as models for their own national or regional guidelines. The guidelines to trust are those within which shared meals have a central place. These have not yet been written.

Conclusion

Full awareness of meals as crucial to public health, requires attention to nutrition in all its main behavioural, social (including cultural), economic and environmental as well as biological aspects.

Shared meals remain fundamental to the ways in which companions, families, friends, guests, travellers, colleagues, and members of clubs, associations, institutions, and societies as a whole, come together, get to know one another, and become and remain coherent. As a binding force, meals are an intrinsic and integral part of all forms of civilisation. This has always been so. But in the last few decades, in some economically privileged but culturally impoverished countries, the meal is fast diminishing, except among ethnic sub-groups, enthusiasts, gastronomes, the very rich, and others who mostly eat in restaurants.

This is a social disaster. It is also a nutritional calamity. In recent decades, a narrow focus on foods and nutrients has blinded scientists and policy-makers to the value of real meals, with all they imply for the ordering of society and the quality of life.

The isolation of nutrition as a merely biochemical discipline, leading to ignorance of the meaning of meals, has been a blunder, and a cause of the current out-of control pandemic of overweight and obesity, and rapid increases – especially now in lower-income countries – of diabetes, cardiovascular disease, and various cancers. Acceptance of this catastrophe, the most blatant public health crisis of our times, is a necessary prelude to a paradigm shift (1) not just in teaching and research, but – much more urgent and imperative – in the shape of new public policies and programmes. These should be originated in those parts of the world where the meal survives.

References

1 *The Moscow Declaration*. Issued at the First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control. Moscow, 28-29 April 2011. Available at: www.who.int.

2 Monteiro C, Levy R, Claro R, Castro I, Cannon G. A new classification of foods based on the extent and purpose of their processing. *Cadernos de Saúde Pública* 2010; **26**, 11: 2039-2049.

3 Monteiro C, Levy R, Claro R, Castro I, Cannon G. Increasing consumption of ultra-processed foods and likely impact on public health: evidence from Brazil. *Public Health Nutrition* 2011; 14, 1: 5-13.

Cite as: Monteiro C. The big issue is ultra-processing. In praise of the shared meal. [Commentary]. *World Nutrition* May 2011, **2**, 5: 235-246.

4 Monteiro C. The big issue is ultra-processing. *World Nutrition* October 2010, **1**, 6: 237-259. Obtainable at: www.wphna.org.
5 Levi-Strauss C. The culinary triangle. [Chapter 3]. In Couninan C, van Esterik P. *Food and Culture: a Reader*. London: Routledge, 1997.
6 US Department of Agriculture/ US Department of Health and Human Services. *Dietary Guidelines for Americans 2010*. Washington DC: USDA-USDHHS, 2010. Available in print as from 27 April 2011. Available on-line from www.dietaryguidelines.gov.
7 Roden C. *A Book of Middle Eastern Food*. London: Thomas Nelson, 1968.
8 Bengoa J, Torun B, Behar M, Scrimshaw N. Nutritional Goals for Health in Latin America. *Food and Nutrition Bulletin* 1989; 11, 1, 4-20.
9 Ministério da Saúde. *Guia Alimentar Para a População Brasileira*. Brasilia DF: Ministério da Saúde, 2005.
10 Giedion S. *Mechanisation Takes Command*. New York: Oxford University Press, 1940.
11 Fischler C. 'McDonaldization' of culture. [Chapter 40]. In: Flandrin J-L, Montanari M. *Food. A Culinary History*. London: Penguin, 2000.
12 Lang T. Heasman M. *Food Wars. The Global Battle for Mouths, Minds and Markets*. London: Earthscan, 2004.
13 Schlosser E. *Fast Food Nation. What the All-American Meal is Doing to the World*. London: Penguin, 2002.

Acknowledgement and request

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Please cite as: Monteiro C. The big issue is ultra-processing. In praise of the shared meal. [Commentary] *World Nutrition*, May 2011, **2,** 5: 235-246. Obtainable at www.wphna.org

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CAM states: Geoffrey Cannon has worked with me on all these commentaries and I regard him as my co-author. They have benefited from discussions I have had in the last two years or so with Inês Castro, Renata Bertazzi-Levy, and Rafael Claro, and also with Geoffrey Cannon and Fabio Gomes, who are all co-authors with me of other papers, published (2,3) and in preparation. I have no conflicts of interest.

WN commentaries are subject to internal review by members of the editorial team.

Cite as: Monteiro C. The big issue is ultra-processing. In praise of the shared meal. [Commentary]. *World Nutrition* May 2011, **2**, 5: 235-246.