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# Letters to the Editor

## Changes in food supply in Mediterranean countries from 1961 to 2001

Sir,

The analysis by Dr Garcia-Closas and colleagues[1] is very interesting. By selecting four north (European) Mediterranean countries and four south (African) Mediterranean countries they were able to plot changes of food and drink consumption together as single graphs. These show that there is and has been no such thing as a 'Mediterranean' food/drink pattern at any time in recent history, as Ferro-Luzzi and Sette showed in 1989[2], and the proportions of the different commodities have moved differently in the individual countries.

There are actually 18 countries with a coast on the Mediterranean Sea (including Malta and Cyprus). We recently looked at their commodity consumption from FAO food balance sheets from the 1960s to end of the 1990s as part of a PhD thesis. The 35 year averages have differed greatly for fish, animal fats, wine and olive oil and least for cereals (between-country range only 108 to 233 kg person$^{-1}$ year$^{-1}$), with intermediate ranges for fruits (25 to 164 kg person$^{-1}$ year$^{-1}$) and vegetables (53 to 232 kg person$^{-1}$ year$^{-1}$).

To be scientifically accurate we really should refer to 'the 1960s Greek (or more precisely Cretan or Corfu) food pattern', 'the 2000 southern Italian food pattern', etc. If we use the term 'Mediterranean diet' we should make clear which Mediterranean diet we mean and whether it is for a real place and time or the concept of a committee or commentator.

Fidanza considered the diet of Nicotera at the tip of southern Italy in 1960 to be the reference Italian Mediterranean diet[3]. When we compared the composition of this diet in g person$^{-1}$ day$^{-1}$ with the areas in the Oldways Mediterranean pyramid[4], we found that the proportions of legumes, fruits, olive oil and fish were higher in the pyramid and the grains, potatoes and meat lower than in the Nicotera food intakes.

There are several reasons for interest in Mediterranean food patterns – historical, economic and gastronomic – but the main interest for nutritionists has been the associated health benefits. Just as the best way to compare food patterns is the FAO food balance sheets, it seems to us that the corresponding health numbers should be WHO figures for life expectancy. Table 1 shows life expectancy at birth, males and females combined, from 1960 to 2000. In this table West Bank and Gaza are given separately from Israel and we added Australia at the bottom as a control, non-Mediterranean country.

**Table 1** Life expectancy at birth (years), both sexes, 1960–1965 to 1995–2000

| | 1960–1965 | 1965–1970 | 1970–1975 | 1975–1980 | 1980–1985 | 1985–1990 | 1990–1995 | 1995–2000 | Mean life expectancy (1960–2000) | % Increase in 35 years |
|---|---|---|---|---|---|---|---|---|---|---|
| Albania | 64.8 | 66.2 | 67.7 | 68.9 | 70.4 | 72.0 | 71.7 | 72.8 | 69.3 | 12 |
| Algeria | 48.3 | 51.4 | 54.5 | 57.5 | 60.5 | 64.9 | 67.0 | 68.9 | 59.1 | 43 |
| Bosnia & Herzegovina | 61.9 | 64.8 | 67.4 | 69.9 | 70.7 | 71.1 | 72.2 | 73.2 | 68.9 | 18 |
| Croatia | 67.1 | 68.5 | 69.6 | 70.6 | 70.5 | 71.5 | 72.5 | 73.3 | 70.4 | 9 |
| Cyprus | 69.2 | 70.3 | 71.4 | 73.7 | 75.0 | 76.1 | 76.7 | 77.8 | 73.7 | 12 |
| Egypt | 47.4 | 49.7 | 52.1 | 54.1 | 56.6 | 61.0 | 63.9 | 66.3 | 56.3 | 40 |
| France | **71.0** | 71.5 | 72.4 | 73.7 | 74.7 | 76.0 | 77.5 | 78.1 | 74.3 | 10 |
| Greece | 69.5 | 71.0 | 72.3 | 73.7 | 75.2 | **76.7** | 77.4 | 78.0 | 74.2 | 12 |
| Israel | 69.4 | 70.8 | 71.6 | 73.1 | 74.4 | 75.6 | 76.9 | 78.3 | 73.7 | 13 |
| West Bank & Gaza | 48.2 | 51.7 | 56.6 | 60.8 | 64.4 | 67.1 | 69.7 | 71.4 | 61.2 | 48 |
| Italy | 69.9 | 71.0 | 72.1 | 73.6 | 74.5 | 76.2 | 77.3 | 78.2 | 74.1 | 12 |
| Lebanon | 60.7 | 62.9 | 65.0 | 65.0 | 65.8 | 67.0 | 69.2 | 72.6 | 66.0 | 20 |
| Libya | 47.9 | 50.4 | 52.9 | 57.7 | 62.4 | 66.7 | 69.0 | 70.0 | 59.6 | 46 |
| Malta | 68.9 | 69.4 | 70.6 | 72.2 | 73.5 | 75.0 | 76.3 | 77.6 | 72.9 | 13 |
| Morocco | 47.9 | 50.4 | 52.9 | 55.8 | 58.3 | 61.9 | 64.4 | 66.6 | 57.2 | 39 |
| Spain | 70.2 | **71.6** | **72.8** | **74.3** | **75.8** | 76.6 | **77.6** | 78.1 | **74.6** | 11 |
| Syria | 51.0 | 54.0 | 57.0 | 60.0 | 62.6 | 65.0 | 67.9 | 70.5 | 61.0 | 38 |
| Tunisia | 49.6 | 52.1 | 55.6 | 60.0 | 63.1 | 65.6 | 67.8 | 69.5 | 60.4 | 40 |
| Turkey | 52.1 | 54.9 | 57.9 | 60.3 | 62.3 | 64.2 | 67.2 | 69.0 | 60.9 | 32 |
| Australia | 70.9 | 70.8 | 71.7 | 73.4 | 75.2 | 76.1 | **77.6** | **78.7** | 74.3 | 11 |

*Source: World Population 1950–2005 (1998 Revision)*, United Nations Population Division.



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The table shows that Spain had the best average life expectancy over the 35 years, and Australia now has a longer life expectancy than any Mediterranean country. The countries that started with long life expectancies have seen a lengthening of about 12% in 35 years; while countries with lower life expectancies have had much bigger gains, around 40% in the period.

It could be argued that these numbers are greatly affected by mortality in children, so we compared health-adjusted life expectancy at 60 years of age in 2002. The respective years for men and women were Japan 19.6, France 18.4, Australia 18.2, Spain 18.15, Italy 17.9 and Greece 17.05. These have changed since the early 1960s, when Australia's life expectancy at 60 years (males and females combined) was 17.19 compared with 17.96 in Italy, 17.74 in Greece, 17.60 in France and 17.88 in Israel.

An idealised 1960s Greek–Italian diet pattern is only one model healthy diet. The Japanese have the longest life expectancy in the world and there are other countries, like Australia, which have improved their relative position.

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Sir,

Although Geoffrey Cannon, in his column in this April's issue of *Public Health Nutrition*[1], recognises the difference between the 'old' NCHS reference as 'descriptive' and the new WHO reference as 'proscriptive', he seems not to appreciate the profound contribution that the NCHS reference made to our knowledge of children's growth throughout the world. I well remember, in the discussions leading to our paper in the *Bulletin of the World Health Organization*[2] and from that to the WHO worldwide surveys, that we too were aware of the shortcomings of the NCHS data. Nevertheless, we decided to adopt the NCHS as a reference, rather than as a standard to be aimed at, for purely practical reasons: it was statistically the best worked-out set of data available, which enabled systematic comparisons to be made worldwide. The excellent datasets of van Wieringen in The Netherlands showed little difference from the NCHS. It was probably inevitable, although not intended, that this reference would be used to assess the growth of individual children. Nevertheless, I submit that a deviation of more than 2SD below the mean is a useful, although not cast-iron, indicator of unsatisfactory growth.

The new reference, which I have not yet seen, certainly has a better claim to be a normative standard, but it remains to be seen whether it makes much difference to comparisons between populations or to the ages at which wasting and stunting have their highest prevalences. The old questions remain: whether there are ethnic/genetic differences in child growth; whether a cut-off point at a particular *Z*-score is a useful statistic, since some argue that the mean and the SD give a better picture of the whole distribution, etc. I believe that although we are moving on, we should not forget the important contribution that was made by the US National Center for Health Statistics.

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## How far should nutrition reach?

Sir,

I fully support *The New Nutrition Science project* described in the September 2005 issue of *Public Health Nutrition*. In the hope of strengthening it, I would like to offer three observations.

First, regarding the status of nutrition science itself, the project emphasises that nutrition science has changed largely because the world has changed. However, it is has also changed partly by becoming weaker. It has lost traction in UN and other agencies, at national as well as global levels, with funding shrinking and some nutrition programmes shutting down. One reason is that nutritionists sometimes work on obscure technical questions while people go hungry just outside their laboratory