

Good health without animal products

Vienna, April 30

Animal products are not needed for excellent health

The longest living group of people in the world are US Seventh Day Adventists.

US Adventist *vegetarians* who drink milk live about two years longer than non-vegetarians.

US Adventist *vegans* (no animal products at all) do slightly better than other vegetarians.

Vegans in the USA and the UK have lower levels of overweight and obesity than people eating animal products and have lower cholesterol levels and lower risk of heart disease.

Death rates updated

- Two recent studies have added to knowledge on death rates in vegetarians and vegans.

	Meat eater	Vegetarian	Vegan
US Adventists (2003 - 668 vegans)	1.00	0.87	0.84
Germany (2005 - 60 vegans)	1.00	1.08	1.59

- US Adventist vegans show good B12 levels and low homocysteine. B12 supplements or fortified foods are widely used.
- German vegans show poor B12 levels and high homocysteine. Vegan B12 supplements are difficult to obtain.

Not all vegan diets are healthy

A vegan diet based on chips, white bread, hydrogenated margarine and soft drinks will **not** be healthy.

As with any diet making healthy choices is important. The potential weaknesses in a vegan diet can be different from those of a conventional diet.

For instance, vegans in a small study in Germany did less well than vegans in the US Adventist study. The key difference appears to be that the US Adventists got enough vitamin B12 while the German vegans did not.

A recipe for a healthy vegan diet

- Eat a wide variety of whole, lightly processed foods.
- Include plenty of brightly coloured fruit and vegetables – ideally 500 grams (about a pound) a day or more.
 - Oranges, berries, apricots, cherries, nectarines, tomatoes, green leafy vegetables, beetroot, carrots, sweet potatoes...
- Eat regular small amounts of nuts and oils, preferably those rich in monounsaturates, such as almonds, cashews and macadamias, and olive and rapeseed oil. (Use more of these foods if you tend to be underweight.)
- Limit use of highly processed foods, particularly those containing hydrogenated fats or a lot of salt.

A recipe for a healthy vegan diet

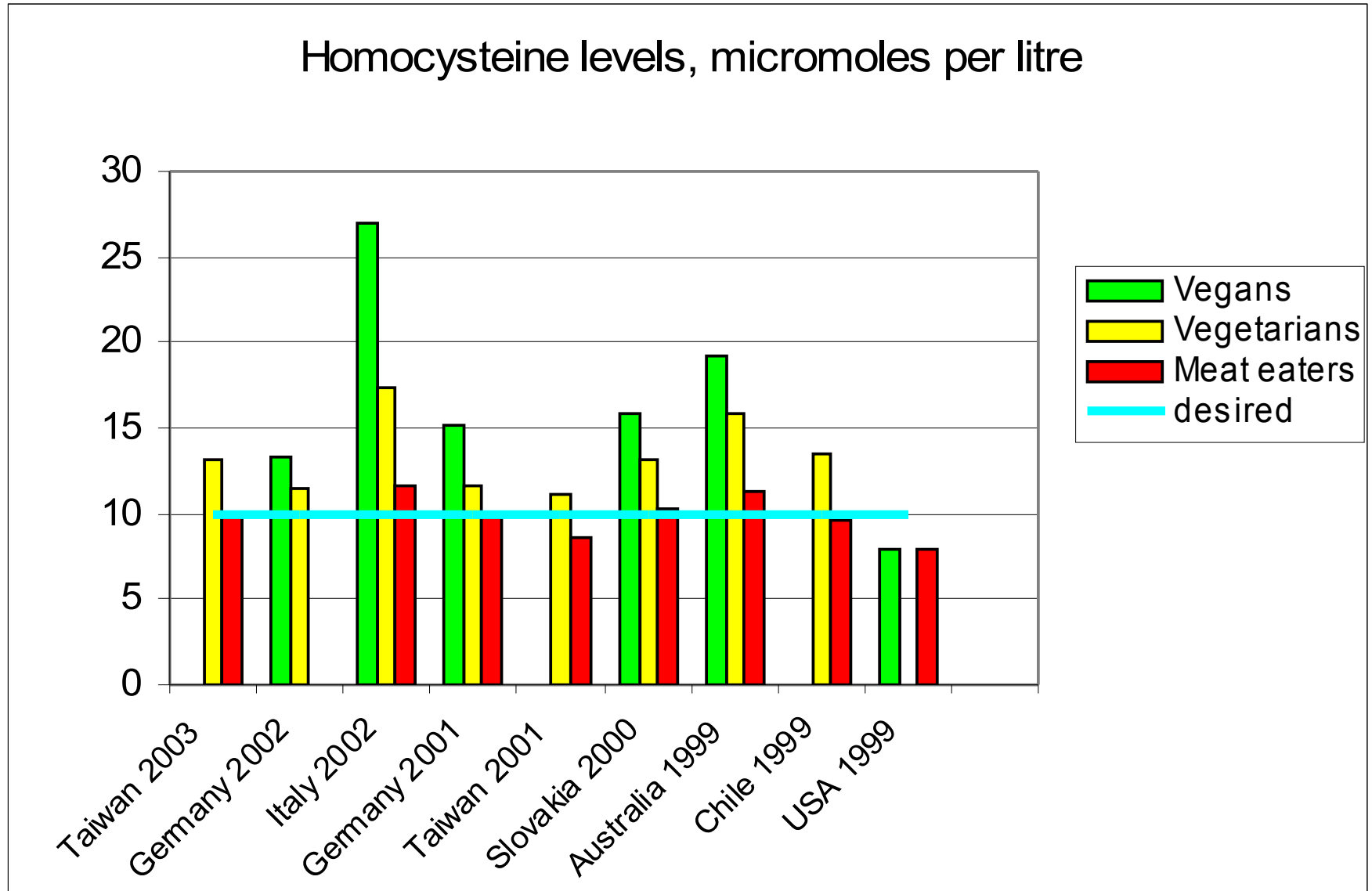
- Get at least 3 micrograms of vitamin B12 per day from fortified foods or supplements.
- Include a good source of plant omega-3s, e.g. a teaspoon of flaxseed oil OR two tablespoons of ground flaxseed OR two tablespoons of rapeseed oil per day.
- Get an adequate amount of
 - Selenium (10 Brazil nuts a week or a supplement)
 - Iodine (15 grams of kelp *a year* or two kelp tablets a week or an iodine supplement)
 - Vitamin D (summer sunlight plus winter holiday further south or fortified foods or supplement)

This should promote all round good health.

Homocysteine and health

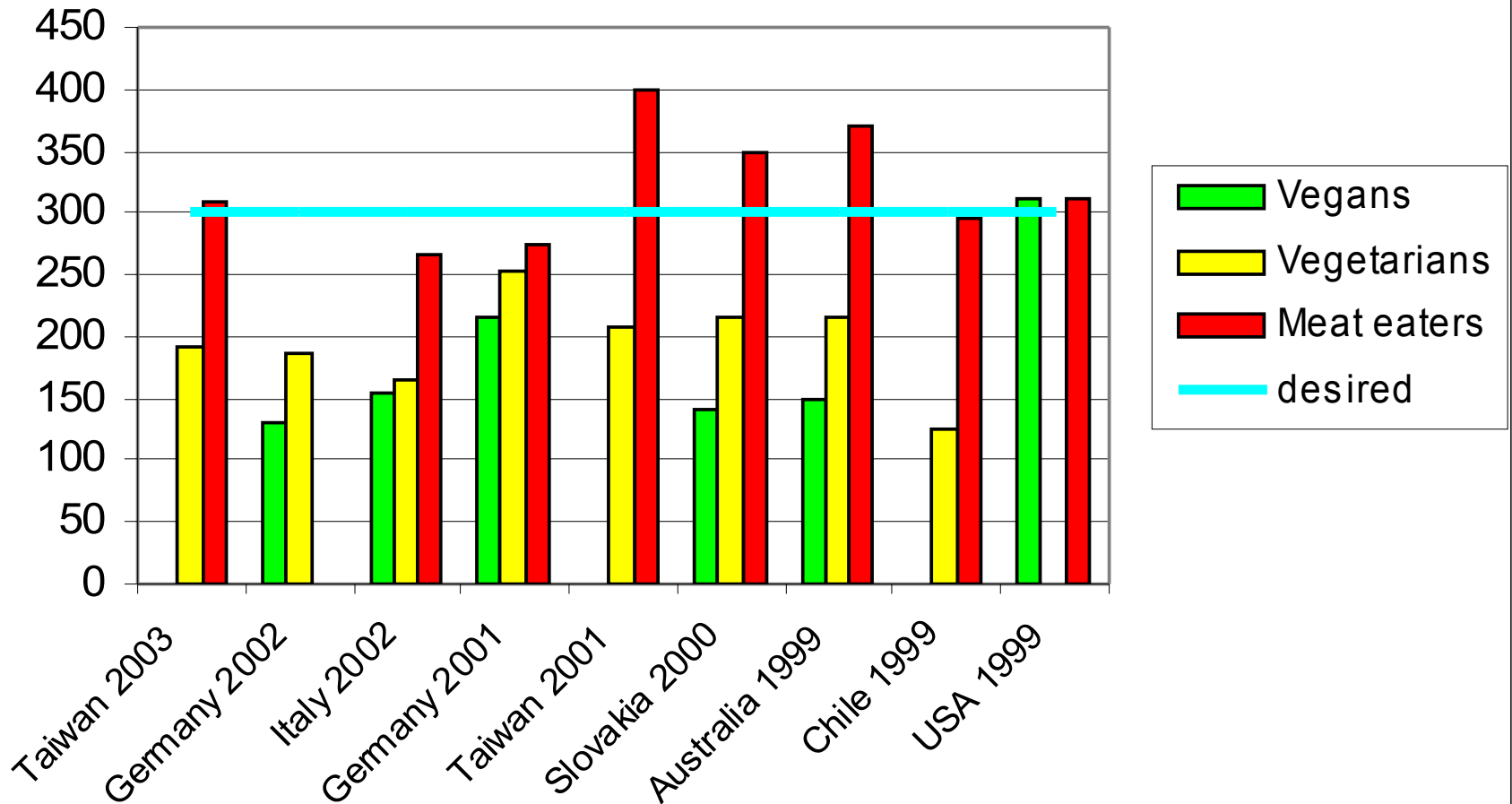
- Elevated homocysteine predicts increased risk of heart disease, stroke, dementia, osteoporosis, depression and death from all causes combined.
- In contrast to cholesterol, homocysteine usually *increases* from meat eaters to vegetarians to vegans.
- Typical vegan homocysteine levels are consistent with a 40% increase in mortality from heart disease and from all causes combined, potentially cancelling out the predicted benefit of their lower cholesterol.
- **This rise in homocysteine is not observed in vegetarians and vegans consuming 3 micrograms or more of vitamin B12 per day.**

Homocysteine levels in different dietary groups

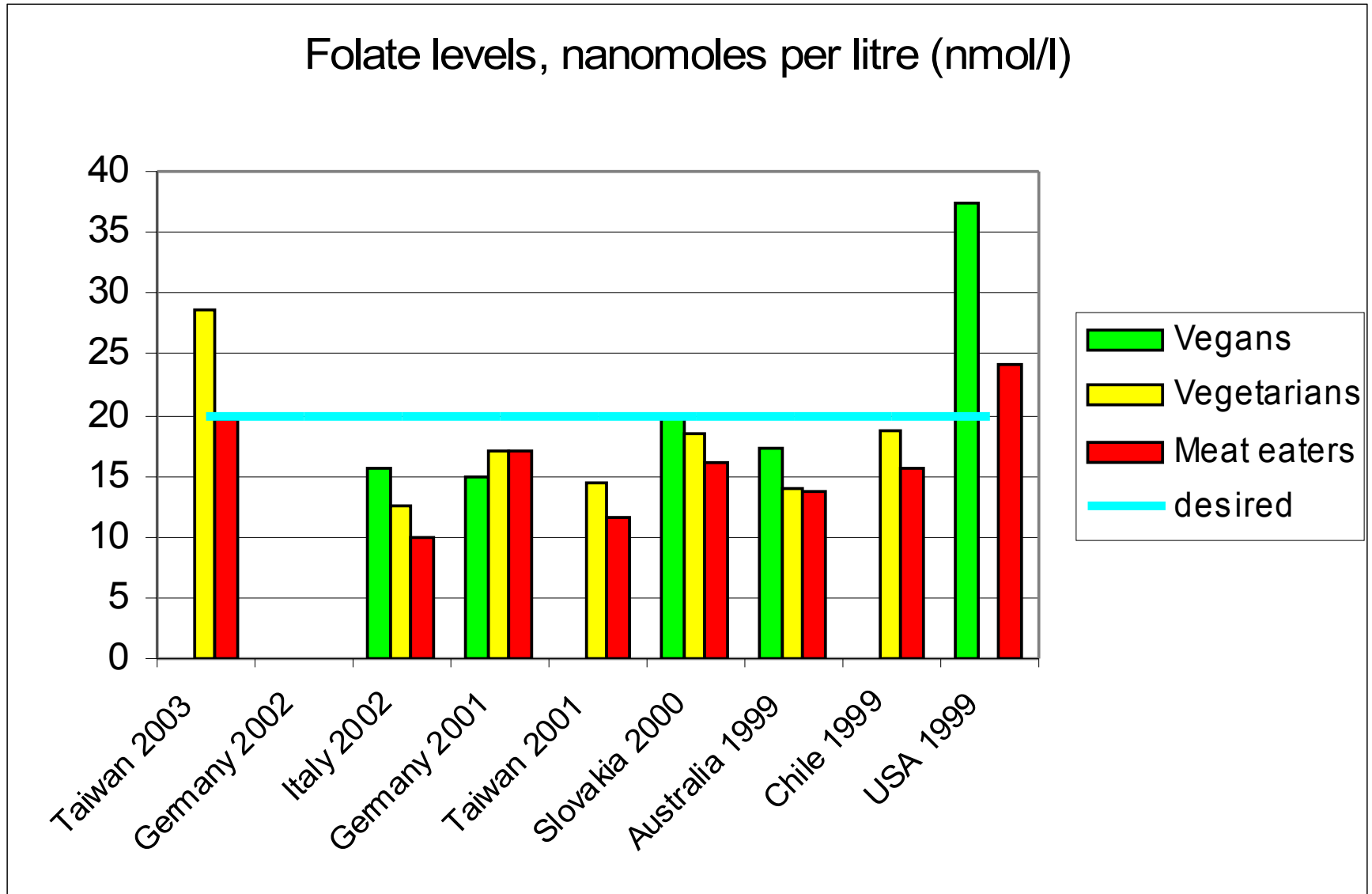


B12 levels in different dietary groups

Vitamin B12 levels, picomoles per litre (pmol/l)



Folate levels in different dietary groups



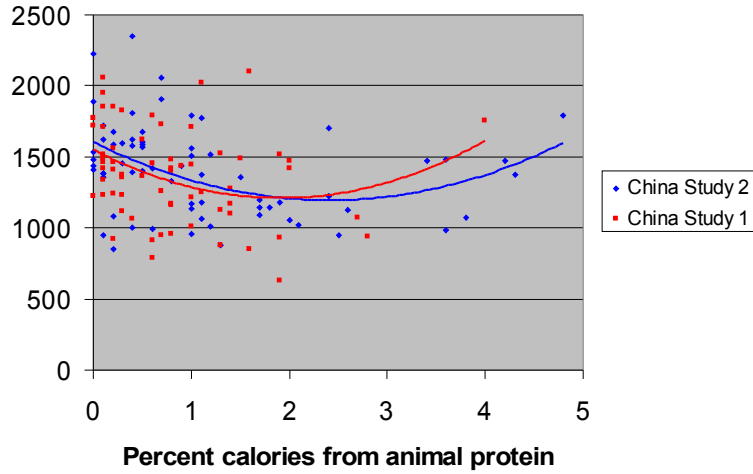
The bottom line: Death rates

- Pooled analysis of four studies of Western vegetarians up to 1997 (adjusted for smoking, age and sex) – one UK, two US Adventist and one German study

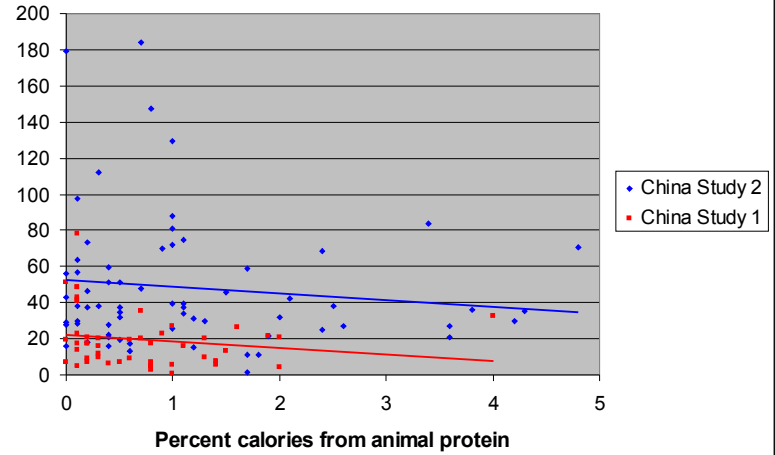
	Regular meat eater	Occasional meat eater	Fish eater	Vegetarian	Vegan
Heart disease	1.00	0.8	0.66	0.66	0.74
All causes	1.00	0.84	0.82	0.84	1.00

- The participants in the studies were rarely obese and generally didn't smoke – overall death rates were about 60% that of the general population.

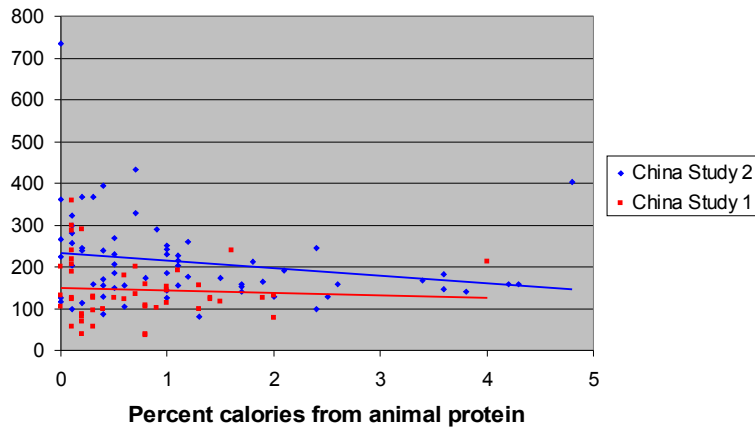
Overall death rates per 100000 per year (35-69)



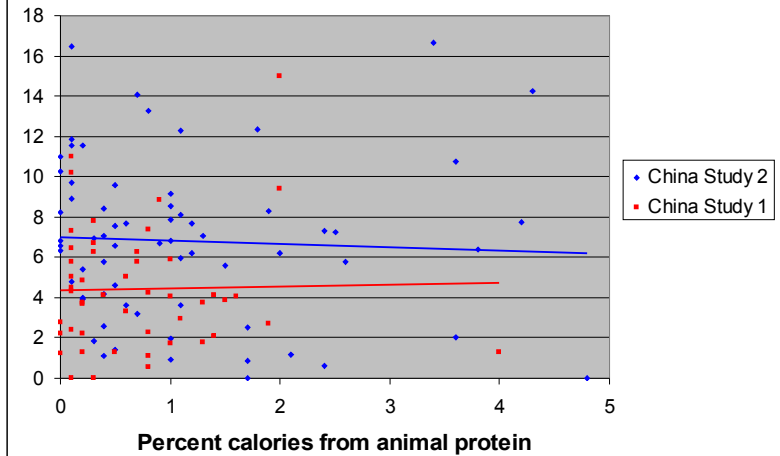
Ischaemic Heart Disease deaths per 100000 per year (35-69)



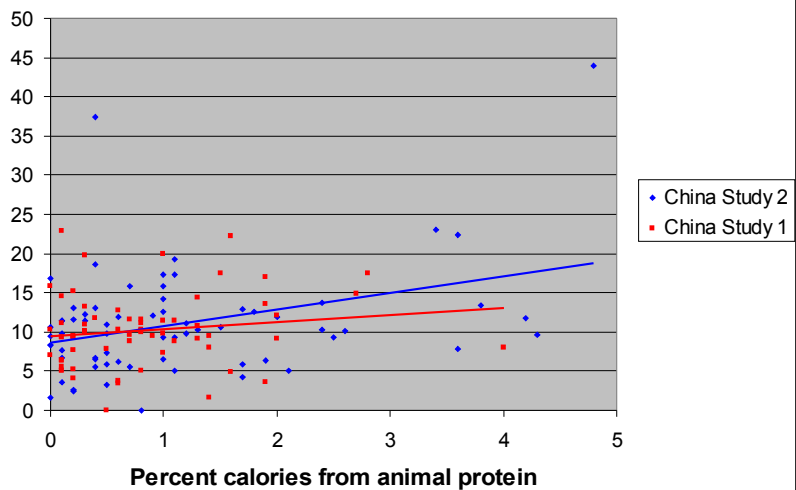
Stroke deaths per 100000 per year (35-69)



Diabetes deaths per 100000 per year (35-69)



Breast cancer deaths per 100000 per year (35-69)



Colorectal cancer deaths per 100000 per year (35-69)

