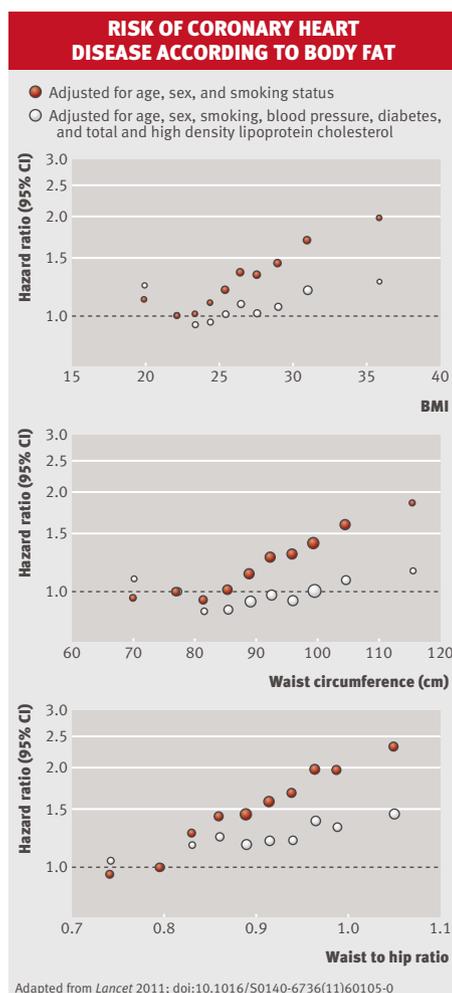# SHORT CUTS

ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS
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Keep measuring body mass index

RISK OF CORONARY HEART DISEASE ACCORDING TO BODY FAT

● Adjusted for age, sex, and smoking status
○ Adjusted for age, sex, smoking, blood pressure, diabetes, and total and high density lipoprotein cholesterol

Adapted from *Lancet* 2011; doi:10.1016/S0140-6736(11)60105-0

Measures of body fat—body mass index, waist to hip ratio, and waist circumference—are a major determinant of cardiovascular disease. Higher values for all three indicate a higher risk of heart attacks and strokes for middle aged and older adults, and some tools for predicting these events include at least one measure of body fat. They probably shouldn't, say researchers. An analysis combining data from 58 different cohorts suggests measures of body fat, alone or in combination, add very little to formal risk prediction using age, sex, blood pressure, history of diabetes, smoking, and lipids.

This is a setback for resource poor countries hoping to dispense with expensive cholesterol tests and use body mass index instead, says a linked comment (doi:10.1016/S0140-

6736(11)60239-0). When added to other risk factors, body mass index had a fraction of the predictive power of key serum lipids in this analysis, the fourth blockbuster cohort study in recent years to look at the relation between body fat and chronic diseases or death.

That doesn't mean we should stop weighing and measuring people, says the comment. Excess body fat is a useful (and treatable) early warning of likely trouble to come, mediated by the effect of fat on blood pressure, lipids, and glucose metabolism.

Unlike some others, the new study found that the association between fat and cardiovascular disease was equally powerful for all three measures (around 25% more disease for each standard deviation increase after adjustments for age, sex, and smoking). Moves to replace body mass index with waist to hip ratio as the metric of choice may be premature, says the comment. Waist to hip ratios are notoriously hard to get right in overweight or obese adults.
Lancet 2011; doi:10.1016/S0140-6736(11)60105-0

Olmesartan implicated in cardiovascular deaths

The US Food and Drug Administration (FDA) continues to investigate the angiotensin receptor blocker olmesartan after a placebo controlled trial reported a small but unexplained increase in deaths among patients taking the drug.

The large trial was designed to find out if olmesartan could delay microalbuminuria in adults with type 2 diabetes, and it did (hazard ratio 0.77, 95% CI 0.63 to 0.94). But significantly more people died from cardiovascular disease in the olmesartan group (0.7% (15/2232 *v* 0.1% (3/2215); 4.94, 1.43 to 17.06) after a mean follow-up of 3.2 years.

A linked editorial (p 970) isn't sure what to make of the findings, and neither are the authors, who suspect the play of chance. It is also possible that olmesartan's hypotensive properties were enough to cause extra deaths in participants with critical coronary arteries. The difference in deaths was most marked in the subgroup of patients with previous coronary heart disease (11 *v* 1; 6.9 *v* 0.7 events/1000 person years; P=0.02), and further exploration suggests that those with the lowest blood pressure at baseline and the largest drop

during the study had the highest risk of cardiovascular death.

The FDA has yet to reach any conclusions or issue any formal warnings after eight months of investigation, says the editorial. Until it does, doctors could prescribe other angiotensin receptor blockers to adults with type 2 diabetes.
*N Engl J Med* 2011;364:907-17

Economic growth fails to feed India's children

A study from India has challenged the widely held assumption that economic growth is the best way to improve the nutrition, health, and wellbeing of the country's children. The authors could find no evidence of a link between economic indicators of development and the prevalence of stunting, underweight, or wasting among young children in a series of national surveys between 1992 and 2006.

Their analyses modelled measures of wealth and growth in each state against measures of nutrition in a total of 77 326 children aged up to 3 years. No consistent associations emerged from multiple models, including those fully adjusted for social and demographic factors likely to influence childhood growth.

Rapid economic growth in India has had little impact on childhood malnourishment, say the authors. So it is unlikely to have much effect on child hunger and child mortality, two key millennium development goals. In the last survey between 2005 and 2006, 40.2% (95% CI 39.1% to 41.3%) of young children were underweight for their age, 45.9% (44.8% to 47.1%) were short for their age, and 22% (21% to 23%) had wasting—defined as being underweight for their height. The numbers are moving in the right direction, but slowly, say the authors. National
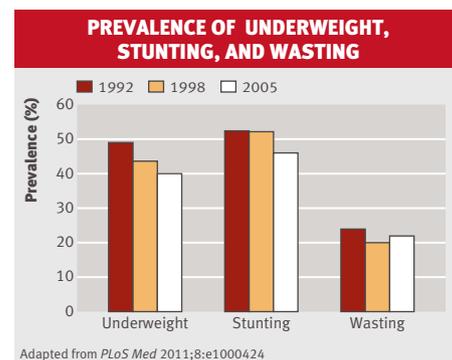
PREVALENCE OF UNDERWEIGHT, STUNTING, AND WASTING

Adapted from *PLoS Med* 2011;8:e1000424

authorities should not assume that further growth will accelerate the trend. India's new wealth has so far failed to find its way to those who need it most.
PLoS Med 2011;8:e1000424

Models help predict the course of Haiti's cholera epidemic

OBSERVED AND PREDICTED HOSPITAL ADMISSIONS

Adapted from *Ann Intern Med* 2011;154
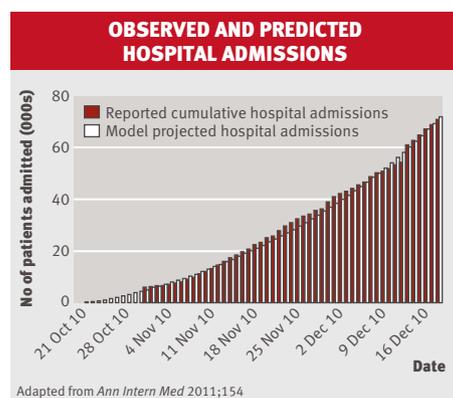
Researchers from Canada have developed a mathematical model to predict the trajectory of Haiti's cholera epidemic and help direct scarce resources such as vaccines. They had few surveillance data to work with, so stuck to a simple design that modelled the spread of disease (person to person, or water borne) between different regions according to the distance between them and their recorded population. When calibrated to the known early contour of the epidemic, the model accurately predicted later spread between regions and hospital admissions up to the end of 2010. Further projections suggested that the epidemic is far from over, and has yet to peak in the three regions affected last.

The impact of the vaccine looked modest in this study, partly because so little is available and the infrastructure to deliver vaccines was destroyed by the earthquake in 2010. Vaccinating half a million people would prevent no more than 3% of cases, say the researchers. Providing clean drinking water to the same number of people would prevent even fewer cases, although the two appeared synergistic when provided together.

A slightly more complex model, developed by a different team in the US, predicts 779 000 new cases of cholera and 11 100 deaths by the end of November this year, figures that are considerably higher than official estimates. According to

this model, vaccinating 10% of the population would save 900 lives, providing clean water to 1% more of the population each week would save 1500 lives, and wider use of antibiotics would save 1300 in the same time frame.

Commentaries linked to both papers (www. annals.org/content/early/2011/03/07/0003-4819-154-9-201105030-00328.full; doi:10.1016/S0140-6736(11)60356-5) agree that multiple prevention strategies should be deployed, as widely as possible and as soon as possible, alongside ongoing efforts to restore infrastructure and improve case management. They also agree that whatever we do cholera is likely to be a serious threat to the people of Haiti for some years yet. One believes the infection could well become endemic.
Ann Intern Med 2011; www.annals.org/content/early/2011/03/07/0003-4819-154-9-201105030-00334.full
Lancet 2011; doi:10.1016/S0140-6736(11)60273-0

Heavy drinkers have a higher risk of pancreatic cancer

Good evidence for an independent association between alcohol consumption and pancreatic cancer has been elusive, partly because drinkers often smoke and smoking causes pancreatic cancer. So researchers exploited data from one of the largest long term cohort studies ever done to try and isolate the risk associated with alcohol, then look more carefully at the separate contributions of beer, wine, and spirits. They used questionnaire data from more than one million US men and women, who reported their drinking and smoking habits in 1982. Close to 7000 participants later died of pancreatic cancer, and the risk was highest for those who drank at least three alcoholic drinks a day, after comprehensive adjustment for confounding factors including smoking (relative risk 1.25 (95% CI 1.11 to 1.42) for three drinks a day *v* none; 1.17 (1.06 to 1.29) for at least four *v* none). The association between heavy drinking and cancer was also significant in an analysis of non-smokers.

Drinkers of spirits were most at risk of pancreatic cancer (1.32, 1.10 to 1.57 for three or more drinks a day *v* none). Beer and wine were exonerated, although these results emerged from analyses confined to adults who stuck exclusively to one type of drink.

There is no obvious reason why whisky, vodka, or gin should be more powerfully associated with pancreatic cancer than beer or wine, although the researchers speculate that a shot of spirits, poured at home, might simply contain more alcohol than a glass of wine or beer. Heavier drinking means a higher chance of chronic alcoholic pancreatitis, a well established risk factor for pancreatic cancer.
Arch Intern Med 2011;171:444-51

Microalbuminuria can regress as well as progress in people with type 1 diabetes

Many people with type 1 diabetes eventually develop microalbuminuria. For some, microalbuminuria is the start of a relentless progression through macroalbuminuria, declining glomerular filtration rate, and eventual end stage renal failure. For others, however, microalbuminuria simply goes away.

The latest study to track the course of renal function in people with type 1 diabetes found that 40% of 325 adults who developed microalbuminuria during or after an early trial of intensive control (recruited 1983-9) regressed back to normoalbuminuria within 10 years. These people had better glycaemic control, fewer diabetic complications, lower blood pressure, and more favourable serum lipid profiles than those who failed to regress, or got worse. They were also more likely to be women. Another 17 people had microalbuminuria for more than 10 years before it disappeared.

Among all 325 people with persistent microalbuminuria, 28% progressed to macroalbuminuria within 10 years (albumin excretion rate ≥300 mg/day), 15% developed impaired glomerular filtration (<60 mL/min/1.73 m^2), and 4% developed end stage renal disease. These figures increased to 39%, 19%, and 7% after 15 years.

Renal protection for people with diabetes has improved since this trial began, and outcomes may be different for later cohorts. Only a small number of these participants were taking angiotensin converting enzyme inhibitors or angiotensin receptor blockers when they first developed persistent microalbuminuria. A quarter of participants were taking these agents when their microalbuminuria regressed.
Arch Intern Med 2011;171:412-20

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