

Educate women to save their children



Girls and women worldwide are being educated for longer than ever before, and by 2009 were spending almost as many years in school as boys and men, according to the latest estimates. Developing countries have made the best progress, particularly for women of childbearing age, although the overall figures disguise the widening gap between countries at the top and bottom of the educational league table. In 2009, women in Afghanistan, Burkina Faso, Chad, Mali, Niger and Yemen had been in school for less than one year on average, compared with 12 years in countries at the top.

The difference matters, say researchers, because educating mothers reduces child mortality. This study, which tracked maternal education for 40 years in 175 countries, suggests that child mortality falls by around 10% for every extra year young women spend in education. Over four million more children survived to their fifth birthday in 2009 than in 1970. Around half the increase was directly attributable to improvements in educating women of childbearing age, they write.

The association between education and survival through childhood is linear and has no threshold, says a linked commentary, so even a few months of primary school can make a difference. Education gives women the power to control their fertility and the resources to access services such as vaccinations for the smaller families that usually follow.

Gakidou E *et al. Lancet* 2010;376:959-974.

More to a healthy lifestyle than abstaining from alcohol and smoking

The components of a healthy lifestyle are well known, and large cohort studies from Europe and the US have shown that sticking to all the rules is associated with a longer, healthier life. Questions remain about women in China, however, few of whom

smoke or drink. What do they have to gain from taking more exercise and eating more vegetables? Substantial protection from cancer, cardiovascular disease and an early death, according to a study from Shanghai.

The 71 243 women in the study did not smoke or drink, so researchers rated their lifestyles from 0 to 5, with a point each for taking daily exercise, eating plenty of fruit and vegetables, having a normal weight, having a normal waist-to-hip ratio, and avoiding any exposure to second-hand smoke from their husbands. In fully adjusted analyses, the researchers found a clear inverse association between overall score and risk of death during 9 years of follow-up (hazard ratios comparing women scoring 4 or 5 with women scoring 0: 0.57, 95% CI 0.44 - 0.74, for total mortality; 0.29, 0.16 - 0.54, for death from cardiovascular disease; and 0.76, 0.54 - 1.06, for death from cancer).

They further estimated that a relatively unhealthy lifestyle, or scoring less than 4, contributed to a third of all deaths (33.4%), a fifth of cancer deaths (18.9%) and 59% of cardiovascular deaths among non-smoking, non-drinking women in Shanghai.

Nechuta SJ *et al. PLoS Med* 2010, doi:10.1371/journal.pmed.1000339

Patients overestimate the benefits of elective PCI

It's now clear that percutaneous coronary intervention (PCI) relieves symptoms but doesn't save lives or prevent heart attacks in people with chronic stable angina. This message has been slow to filter through to cardiology patients at one US hospital, who were surveyed during 2008, well after the publication of a landmark trial. All 153 were scheduled for elective coronary angiography followed by a PCI if the investigator found an amenable lesion. Most patients were offered the procedure after a positive stress test. Nearly a third had never had angina, and just 42% (48/115) reported angina serious enough to limit their daily activities.

Nine out of 10 patients who responded to the questionnaire believed that a PCI would cut their risk of a heart attack (88%, 95% CI 81% - 93%), and four-fifths also believed it would help prevent a fatal heart attack (82%, 75% - 89%). The 37 cardiologists who were also surveyed didn't share their patients' optimism. Most seemed familiar with the limitations of the procedure they were recommending (or performing). The survey failed to establish why cardiologists recommended PCI to patients without limiting angina when they knew the only benefit was relief of symptoms. The authors

cite pressure from patients and from lawyers and an intuitive sense that a narrowed artery should be widened if at all possible.

Rothberg MB *et al. Ann Intern Med* 2010;153:307-313.

Smoking ban reduces admissions for childhood asthma

In March 2006 legislators banned smoking in public places and workplaces across Scotland, a country of 5 million people. Hospital admissions for asthma among children fell by 18.2% per year (95% CI 14.7% - 21.8%) after the ban, according to a time trend analysis. The reduction was significant and remained significant through adjustments for age, sex, year, month, social class and urban or rural residence. Asthma admissions fell among schoolchildren (by 20.8%, 95% CI 16.6% - 25.1%) and preschool children (18.4%, 14.3% - 22.4%) in all regions of Scotland regardless of their level of affluence. Admissions had been rising steadily before the ban, by an average of 5.2% a year (3.9% - 6.6%).

The authors tracked hospital admissions for asthma between 2000 and 2009 using routinely collected data. Their study can't prove that banning smoking caused the trends, but the authors think other explanations unlikely. This new evidence should help lay to rest any residual worries that banning smoking in public places would drive smokers back home and increase children's exposure, they write. A substantial body of evidence links environmental tobacco smoke with an increased risk of asthma, and we already know that smoking bans are associated with improvements in respiratory symptoms among workers in bars, pubs and clubs. This study suggests that the benefits extend to children, who have the most to lose from exposure to cigarette smoke because of their small size, smaller airways and a relatively high respiratory rate.

Mackay D *et al. N Engl J Med* 2010;363:1139-1145.

