Persistence of measles threatens elimination plans in Europe

National surveillance organisations from across Europe reported 12,132 cases of measles in 2006 and 2007. Most of the cases were unvaccinated or inadequately vaccinated children, and 85% came from the UK, Germany, Switzerland, Italy, and Romania. Crude incidence fell significantly between 2006 and 2007, but the UK remained near the top of the league table, with 26% of all European cases in 2007. Researchers compiling data from the 32 national organisations found seven deaths, all in children, and most as a result of pneumonia.

These data indicate that persisting outbreaks of measles in some countries threaten the World Health Organization’s goal of eliminating measles in Europe by 2010, say the report’s authors. They also suggest a link between incidence and poor vaccination coverage. Countries such as Switzerland and Germany don’t achieve anything like the 95% coverage needed for total elimination of the virus. The UK meanwhile is recovering only slowly from an unsubstantiated scare linking the combined measles, mumps, and rubella vaccination with autism, says a linked comment (doi:10.1016/S0140-6736(08)61850-4).

Individual countries must identify and tackle their own vaccination problems, it says. Hard to reach mobile populations are particularly vulnerable to measles outbreaks and need special attention. *Lancet* 2009; doi:10.1016/S0140-6736(08)61849-8

**Millions of Chinese smokers risk premature death**

Chinese researchers recently estimated that smoking was directly responsible for the premature deaths of well over half a million Chinese adults in 2005. Most died of cancer (268,200), cardiovascular disease (146,200), or respiratory disease (66,800), particularly lung cancer, stroke, and chronic obstructive pulmonary disease. In their cohort study, smoking accounted for an estimated 12.9% of all deaths in middle aged and older men and 3.1% of all deaths in middle aged and older women in 2005.

The study comprised 169,871 Chinese adults who were over 40 when recruited. They were followed up for eight years. Overall, smoking increased the risk of death by 21% (adjusted relative risk 1.21, 95% CI 1.16 to 1.26) for men and 33% (1.33, 1.25 to 1.41) for women. These figures are somewhat lower than corresponding figures reported for Western populations, perhaps because this Chinese cohort started smoking later than similar cohorts in the West. Age at initiation continues to fall, however.

Tobacco control in China is better than it used to be, says the authors, and is still being scaled up. But 300 million citizens still smoke, and the government has a serious competing interest—it relies on revenues from selling tobacco through a state owned company. *N Engl J Med* 2009;360:150-9

**Elective caesarean sections are safest at 39 weeks, not before**

Women who have an elective caesarean section before 39 weeks put their babies at risk of preventable neonatal complications, according to a cohort study from the US. Risks were highest for babies born electively at 37 weeks (adjusted odds ratio 2.1, 95% CI 1.7 to 2.5), but were still increased for those born at 38 weeks (1.5, 1.3 to 1.7).

These authors studied 13,258 women having repeat elective caesarean sections at 19 academic hospitals. More than a third (35.8%) had their surgery before the recommended 39 weeks. The combined incidence of complications was 15.3% (128/834) at 37 weeks, 11% (430/3909) at 38 weeks, and 8% (524/6512) at 39 weeks, a significant trend. Risks began to go up again for deliveries after 41 weeks, leaving a narrow two week window for the best chance of a good outcome.

The authors included 10 complications in their combined outcome, including respiratory...
distress, sepsis, hypoglycaemia, admission to neonatal intensive care, and death. Only one baby died. Most of the increased risk associated with early delivery was driven by respiratory problems, sepsis, and hypoglycaemia.

Women who opted for early delivery were older and more likely to be married and have private insurance than the others. *N Engl J Med* 2009;360:111-20

**Standard surgery alone looks like the best option for women with early uterine cancer**

Lymphadenectomy and radiotherapy are widely offered to women with stage I endometrial cancer, in addition to standard hysterectomy and oophorectomy. Neither intervention improved survival in recent randomised trials. In the first, systematic dissection of the iliac and obturator nodes made no difference to survival over 37 months for 1408 women having surgery for stage I disease (deaths 103/704 (15%) in the lymphadenectomy group v 88/704 (13%) in controls; hazard ratio 1.16, 95% CI 0.87 to 1.54). The authors say it can’t be recommended as a therapeutic procedure. The value of lymphadenectomy for staging is still an open question.

A pooled analysis of two further trials found no survival benefit associated with postoperative radiotherapy for women with stage I disease and histological features indicating an intermediate or high risk of recurrence (1.05, 0.75 to 1.48). Five year survival was 84% for women in both the radiotherapy and control (observation) groups. An updated meta-analysis including these results effectively ruled out any clinically relevant effect on survival (1.04, 0.84 to 1.29). In view of the associated toxicity, external beam radiotherapy should not be offered routinely, say the authors. *Lancet* 2009; doi:10.1016/S0140-6736(08)61766-3 *Lancet* 2009; doi:10.1016/S0140-6736(08)61767-5

**Poor sleep increases vulnerability to colds**

Sleeping badly makes you tired, but does it make you ill? To find out, researchers recruited 153 healthy volunteers who agreed to be quarantined for five days and inoculated with the cold virus RV-39. Most of them were infected (135/153; 88%), as defined by isolation of the virus from nasal lavage or development of neutralising antibodies. Only 54 (35%) caught a cold with objective symptoms and signs, but the researchers found a significant association between clinical illness and poor sleep in the two weeks before exposure. People who slept less than seven hours a night were particularly susceptible (odds ratio 2.94, 95% CI 1.18 to 7.30, relative to those who slept eight hours or more). So were inefficient sleepers—people who spent less than 92% of their time in bed actually asleep (5.5, 2.08 to 14.48 relative to more than 98% sleep efficiency). The link between catching a cold and poor sleep efficiency was independent of more than a dozen possible confounders, including an unhealthy lifestyle, obesity, and stress. The researchers conclude that poor sleep probably does make people more susceptible to colds. *Arch Intern Med* 2009;169:62-7

**Inadequate evidence hampers treatment of chronic hepatitis B**

The latest US guideline on the treatment of chronic hepatitis B infection has little concrete advice to give patients, doctors, or policy makers. The linked systematic review found no trials that were big enough to assess the effect of available treatments on cirrhosis, cancers, or deaths. Because these are the outcomes that matter, it is hard to be conclusive about any therapeutic option. Most drugs were approved by regulatory authorities after small trials indicated improvements in surrogate markers, such as clearance of hepatitis B DNA and serum concentrations of alanine amino transferase. The review included trials of interferon alfa-2b, pegylated interferon alfa-2a, lamivudine, adefovir, entecavir, and telbivudine.

Reporting of side effects was also poor, although the review’s authors say the interferons are probably less well tolerated than oral antiviral agents.

Obtaining better evidence won’t be easy but must be done, say the guideline’s developers. Researchers should start by studying the natural course of this enigmatic disease. Finding out more about the link between surrogate markers and clinical progress is another top priority, although one may not exist. Long term randomised trials, with clinically relevant outcomes, are still justified for most treatments and patient groups, they conclude. *Ann Intern Med* 2009;150:104-10; 111-24

**Breaking the cycle of schistosomiasis in China**

Schistosomiasis is one of the world’s most common infections. Drugs such as praziquantel kill the intravascular parasites but do little to interrupt the complex cycle of reinfection that involves freshwater snails then waterborne cercariae that penetrate the skin of humans and sometimes livestock. Both excrete the eggs and the cycle begins again.

In an attempt to interrupt transmission, researchers recently evaluated an ambitious social project in villages around the largest freshwater lake in China, where Schistosoma japonicum remains endemic, despite yearly mass treatment campaigns. During the two year project, human sanitation was improved dramatically by providing clean tap water and proper latrines, boats on the lake were fitted with tanks to keep faecal matter out of the water, and adults and children received an intensive package of education.

Infections in both humans and snails fell by more than 75% in the two villages that received the intervention, but not in two control villages. Infectivity of the lake water fell by 97% during the three transmission seasons of the study. The project has now been expanded into a national control strategy for schistosomiasis in China. *N Engl J Med* 2009;360:121-8

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**HUMAN INFECTIONS IN INTERVENTION AND CONTROL VILLAGES**

**EFFECT OF TIMING OF ELECTIVE CAESAREAN DELIVERY ON NEONATAL OUTCOMES**