NEWS

Mesothelioma deaths may double within 20 years

A new study predicts that a quarter of a million men in western Europe will die of asbestos-related cancer in the next 35 years. Julian Peto (Institute of Cancer Research and London School of Hygiene and Tropical Medicine, London, UK) and colleagues estimate that deaths from mesothelioma—mostly caused by asbestos—will increase from 5000 a year in 1998 to 9000 in 2018 (*Br J Cancer* 1999; **79:** 666–72).

Peto and his team base their prediction on an analysis of national data on male deaths from pleural cancer—the closest available statistic in most countries—from Britain, Italy, France, the Netherlands, Germany, and Switzerland. The risk of mesothelioma will be highest among men born between 1945 and 1950, says Peto. "Asbestos use in the building and engineering industries [in Europe] peaked around 1970, when men born in 1950 started work. The effects are only now beginning to be seen, because mesothelioma usually takes 20–60 years to develop." Peto expects mesothelioma deaths to peak around the year 2020 and then decline, because asbestos use has been greatly reduced since the early 1980s. "1 in 150 of all men in western Europe aged around 50 will eventually die of mesothelioma, and the risk is, of course, much higher among those who worked with asbestos."

The risk to men born since 1955 is not yet known, but Peto warns that there is still a great deal of asbestos in older buildings where it was used for insulation and fire protection. Renovation and demolition workers may be exposed to asbestos if proper precautions are not taken, he says.

"The risk of mesothelioma varies with intensity and duration of exposure to asbestos, but there is no safe level below which there is no risk", says respiratory physician Robin Rudd (St Bartholomew's Hospital, London, UK). "How asbestos causes mesothelioma has not been fully elucidated. We don't know whether it causes direct genetic damage or whether carcinogenesis results from the action of inflammatory mediators in response to asbestos."

Nancy Tait (UK Occupational and Environmental Diseases Association) comments that "epidemiologists are confirming that when materials containing asbestos are being used, anyone near by may be at risk". A remaining problem, she adds, is the lack of agreed criteria for the diagnosis of lung cancer caused by asbestos—Peto estimates that asbestos causes about equal numbers of lung cancers and mesotheliomas.

Dorothy Bonn

Deadly debris for years to come

Dangerous whatever the colour

All three types of asbestos—crocidolite (blue asbestos), amosite (brown asbestos), and chrysotile (white asbestos)—can cause mesothelioma. Chrysotile is the least dangerous form, but it could contribute most to the global incidence of mesothelioma because it has been more widely used. By the mid 1980s, many European countries had banned the use of blue and brown asbestos, and at least ten have recently banned, or are about to ban, white asbestos too. However, uncontrolled use of asbestos remains common elsewhere. In the 1960s, Europe and North America were the main importers of South African asbestos, but by 1989–91 the Far East was taking 90% of South Africa's chrysotile. Thus, "newly importing countries can confidently expect an increase in asbestos-related disease and death well into the twenty-first century, even if the trade ceased now" (*Am J Ind Med* 1998; **33:** 321–26).

Urinary telomerase shows promise as a screening test for bladder cancer

In a prospective study, measurement of urinary telomerase proved to be "the best supplement to cystoscopy for bladder cancer screening and surveillance".

Sanjay Ramakumar and coworkers (Mayo Graduate School of Medicine, Rochester, MN, USA) compared the performance of urine cytology with the accuracy of several other urinary markers for bladder cancer including: bladder-tumour-associated antigen, nuclear matrix protein 22, fibrin-degradation products, haemoglobin, and telomerase. 57 patients with bladder cancer and 139 without evidence of a bladder malignancy were investigated with the battery of tests (*J Urol* 1999; 161: 388–94).

Measurement of telomerase activity had the highest combination of sensitivity and specificity (70% and 99%, respectively). The gold-standard test—urinary cytology—had a sensitivity and specificity of 44% and 95%, respectively. Telomerase measurement was particularly useful in patients with carcinoma in situ, write the authors. In 10 of 11 of these patients, urine samples were positive for telomerase activity. However, the "data must be confirmed by larger studies before clinical practice can be altered", they add.

Jane Bradbury

News in brief

Public trust in doctors high According to an opinion poll commissioned by the British Medical Association, 91% of the UK public "generally trust" doctors to tell them the truth. 90% of those asked believe that doctors do their job well despite recent media coverage of doctors making mistakes or taking advantage of their position.

Handwashing in hospitals On average, health-care workers in a Geneva teaching hospital washed their hands on only 48% of the indicated opportunities. Non-compliance with handwashing was higher among doctors (odds ratio [OR] 2·8, 95% CI 1·9–4·1) than among nurses, higher in intensive care than in internal medicine units (OR 2·1, 95% CI 1·3–3·1), and higher when intensity of patient care was high—ie, when more opportunities for handwashing arose (*Ann Intern Med* 1999; **130:** 126–30).

US hand transplant According to media reports, the first-ever US hand transplant was done by Warren Breidenbach on Jan 24 at the Jewish Hospital, Louisville, Kentucky, USA. A 37-year-old New Jersey man, who lost his left hand in 1985 after an explosion, received a new hand from a cadaver in a 15-hour operation. 4 months ago surgeons did a similar operation in Lyon, France.

More evidence that tea is good for the heart

Coffee drinkers may no longer need to worry that their chosen beverage increases their risk of a heart attack. And tea drinkers may really have something to celebrate, according to the results of a new study.

Howard Sesso (Brigham and Women's Hospital, Boston, MA, USA) and colleagues investigated the coffee and tea drinking habits of 340 men and women who had had heart attacks and those of a matched group of healthy people. The researchers report no association between coffee drinking and myocardial infarction, but say that the heart-attack risk in people drinking one or more cups of tea per day was about half that of tea "teetotallers" (odds ratio 0·55, 95% CI 0·36–0·85; *Am J Epidemiol* 1999; **149:** 162–67).

The cuppa that refreshes

The association between coffee drinking and heart attacks has been studied for years, but whereas case-control studies have tended to find an association, many cohort studies and meta-analyses have not, says Sesso. His case-control study may not have found an association, he explains, "because Americans don't have the heavy, 10–12 cup-a-day coffee habit of many Europeans".

Sesso's results on the possible protective effects of tea are consistent with a spate of recent reports. But because tea-drinking Americans also tend to be among the health conscious, the interpretation of epidemiological studies can be tricky, says Sesso. However, in his study, the protective effects of tea did hold up even after adjustment for coronary risk factors and serum lipid concentrations.

Sesso and his colleagues suggest that tea may be beneficial because it contains flavonoids which reduce platelet aggregation and inhibit LDL-cholesterol oxidation. Flavonoids are now a hot area of nutrition research, notes Gary Beecher (US Department of Agriculture's Agricultural Research Service, Beltsville, MD, USA), partly because tea makers want to tout their product as a good health choice, and so are "really pushing for human studies and other kinds of studies to prepare to back up their health claims to the US FDA".

All teas are not equal, however, and last year Beecher and co-workers reported on catechin (flavan-3-ol) concentrations in different forms of tea. Although several brands of black tea had substantial amounts of catechins, there were reduced amounts in decaffeinated black tea, and catechins were undetectable in herbal teas.

Peter Wehrwein

The need for a cigarette: does it reside in the genome?

People who carry allele 9 of the dopamine transporter gene (*SLC6A3*) are less likely to be smokers, report two new studies

In a case-controlled study of 289 smokers and 233 non-smokers, Caryn Lerman (Georgetown University Medical Center, Washington, DC, USA) and colleagues found that smokers were significantly less likely to have the *SLC6A3-9* genotype than were non-smokers (46·7% *vs* 55·8%; *Health Psychol* 1999; 18: 14–20). Other results in the study "provide the first evidence that this genotype is associated with smoking risk, age at smoking initiation, and the ability to quit smoking", explains Lerman.

Dean Hamer (National Cancer Institute, Bethesda, MD, USA) and co-workers examined smoking behaviour, personality traits, and *SLC6A3* genotype in non-smokers, current smokers, and former smokers. "We found no association between the *SLC6A3-9* genotype and smoking initiation but there was a significant link with smoking cessation", says Hamer. 51% of former smokers had the *SLC6A3-9* genotype but only 42% of current smokers. People with allele 9 were 1·5 times more likely to have given up smoking than those without it. The polymorphism was also associated with low scores for novelty seeking, a personality trait typified by the need for instant gratification (*Health Psychol* 1999; 18: 7–13).

Lerman and Hamer say that their data provide evidence that the *SLC6A3-9* genotype reduces the tendency to start smoking and to stay hooked. "This is the first step in extending our knowledge of the genetics of smoking to the point where specific treatments, tailored for a person's genetic background, can be devised", says Hamer.

Lerman is now testing whether bupropion hydrochloride can boost smoking cessation rates in people without allele 9. If the *SLC6A3-9* genotype reduces the need for reward by external stimuli by altering dopamine transmission, then bupropion hydrochloride—a selective dopamine re-uptake inhibitor—may help smokers without *SLC6A3-9* quit smoking.

Kathryn Senior

Link between fibre and colorectal cancer debunked in largest-ever study

Data from the Nurses' Health Study show no protective effect of dietary fibre against the development of colorectal cancer or adenomas in women. The study is the largest yet to examine this issue.

In a prospective study of 88 757 women with no history of cancer, dietary information was collected in 1980 using a semi-quantitative food-frequency questionnaire. During 16 years of follow-up there were 787 cases of colorectal cancer in the cohort and 1012 cases of adenoma of the distal colon and rectum among 27 530 women who had endoscopy.

Charles Fuchs (Harvard Medical School, Boston, MA, USA) and colleagues stratified dietary fibre intake into quintiles: women in the highest quintile had a median fibre intake of 24·9 g/day; in the lowest quintile fibre intake was 9·8 g/day. After adjusting for age, known risk factors, and total energy intake, there was no association between dietary fibre intake and colorectal-cancer risk. The relative risk for the highest quintile compared with the lowest was 0·95 (95% CI 0·73–1·25). The results were also null for all subgroups examined, including division of the cohort by family history of colorectal cancer. No protective association was found for individual types of fibre (*N Engl J Med* 1999; **340:** 169–76).

The protective effect of high dietary fibre against colorectal cancer was first suggested by Denis Burkitt, who noticed that Africans had a low incidence of the disease and a high fibre consumption.

Can we go back to white bread?

Several retrospective studies, possibly flawed by recall bias, have shown a link between low dietary fibre intake and increased colorectal-cancer risk. "All the prospective studies that have looked at the fibre issue are null", explains Fuchs. "Ours is just the biggest." Although this study examines only women, the 1994 Health Professionals follow-up study involved more than 47 000 men and also showed no protective effect from fibre (*Cancer Res* 1994; **54:** 2390–97).

Some experts are more cautious about the results. Elaine Lanza (National Cancer Institute, Bethesda, MD, USA) notes that: "fibre intake in the highest intake group is not as high as it could be, and it might be that the US diet does not have the same range of fibre [as the African diet]. It would be interesting to do a comparison with results from other countries."

"The fibre thing has almost become a religious belief because . . . there was nothing else to do", says Fuchs. "But in the past decade there has been some phenomenal research showing other [dietary] constituents as being helpful [in colon-cancer prevention]." A high fibre intake should, however, still be encouraged to help protect against heart disease, he adds.

Hannah Wunsch

"Pharmacy" on a microchip looks promising

An implantable, self-contained pharmacy-on-a-chip, which releases controlled pulses of drug on demand, has been developed at the Massachusetts Institute of Technology (MIT; Cambridge, MA, USA). "Unlike other implants or controlled-release tablets, this device enables the delivery of precise amounts of medication exactly where and when you need them", says lead author John Santini.

Paul Horwitz, Atlantic Photo Service

Dime-sized pharmacy

A dime-sized (15 mm diameter) prototype of the microchip pharmacy provides "a proof of principle", according to Robert Langer, head of the MIT team. The prototype contains 34 reservoirs, each the size of a pinprick and capable of holding 25 nL of drug (in solid, liquid, or gel form)—there is room for "at least 1400 wells", says Langer. A small electrical voltage applied to a reservoir causes its gold "cap" to dissolve and release the drug (*Nature* 1999; **397:** 335–38).

In the prototype, the reservoirs are connected to an external power source, but "we envision a completely autonomous device, pre-programmed by a microprocessor, that can be implanted subcutaneously or intraperitoneally, with no wires or catheters sticking outside of the body", says Santini. Drug release could also be triggered remotely.

Potential applications include local delivery to sites of chronic pain of "extremely tiny amounts of highly potent morphine analogues", says Santini. Also, timed pulsatile delivery of 5–10 μg gonadotropin-releasing hormone to treat infertility should be possible. And the device could be used to deliver medications automatically to patients with memory disorders so that "the person who has trouble remembering doesn't have to", explains Santini.

Marilynn Larkin

US FDA issue warning on dietary supplement

On Jan 21, the US FDA warned consumers not to use any products containing gamma butyrolactone (GBL). The FDA also asked manufacturers to voluntarily recall these products, many of which are marketed as dietary supplements.

GBL is converted in the body into gamma hydroxybutyrate, a potent unapproved drug which is being investigated for the treatment of narcolepsy. GBL-related products are claimed to build muscle, improve physical performance, enhance sex, and reduce stress. The products can be bought via the internet and in some gymnasiums.

The FDA says that these products are illegally marketed unapproved new drugs and that GBL-related products have been associated with at least 55 reports of adverse health effects, including one death. 19 people have become comatose or unconscious after using one of the products. Other reported side-effects include seizures, vomiting, slow breathing, and slow heart rate.

Jane Bradbury

Hypnosis makes headway in the clinic

Exaggerated claims by lay hypnotists have obscured the technique's proven benefits, say clinicians who routinely use hypnosis in the treatment of pain, needle phobia, and many other conditions. "There is a rich scientific literature on hypnosis that stretches back over 100 years—each year there are about 150 articles on hypnosis in mainstream medical and science journals. It's not one of those fuzzy interventions for which no research has ever been done", stresses Michael Nash (University of Tennessee, Knoxville, TN, USA), editor of the *International Journal of Clinical and Experimental Hypnosis*. The American Medical Association and other medical associations have formally recognised hypnosis as a viable medical treatment, says Nash, and "we don't even qualify for alternative-medicine research funds".

Donald D Price (University of Florida, Gainesville, FL, USA) says there is now evidence of a neurobiological basis for hypnosis. "People think that during hypnosis, the brain goes to sleep. In fact, specific brain areas become activated." In a study to be published soon in the *Journal of Cognitive Neuroscience*, positron emission tomography scans were done on volunteers during hypnotic relaxation. Scans were also done during hypnotic suggestion: the volunteers' hands were put in hot water, and suggestions given aimed at altering pain perception. Different patterns of regional cerebral blood flow were recorded in response to hypnosis with and without suggestion (panel).

Brain activations during hypnosis

Hypnotic relaxation

↑ Activity in: occipital region (?deep relaxation/decreased arousal)
caudal area of right anterior cingulate sulcus
inferior frontal gyri

↓ Activity in: right inferior parietal lobule (?dissociation/reduced sense of self)
left pre-cuneus/posterior cingulate gyrus

Hypnosis with suggestions

↑↑Activity in: frontal cortices (?verbal mediation of suggestions)

↑ Activity in: medial and lateral posterior parietal cortices

These results imply that the hypnotic "trance" state is different from normal consciousness, and that it facilitates the processing of hypnotic suggestions, says Price, who has himself been hypnotised. "My idea is that when you're hypnotised, you experience things automatically, not deliberately. If someone suggests that your arm is raising up, it's as if your arm is doing it by itself."

Irving Kirsch of the University of Connecticut (Storrs, CT, USA) argues that what decides a patient's response to hypnosis is patient expectations. "You can't get any response with hypnosis that you can't also get without it, although hypnosis slightly increases the likelihood of getting the response. How people behave and what they experience during hypnosis depends almost completely on what they think is supposed to happen." People who don't want to be hypnotised won't be, and hypnosis can't make people do things they would normally refuse to do.

From parlour game to clinical tool

"People have the idea that the hypnotist has the power, and it's through his cunning techniques that a person experiences hypnosis. That is wrong", says Nash. In receptive individuals, the hypnotist "uses in a systematic way the abilities the patient already has. It's almost like helping them hone their own skills".

Irrespective of whether a person goes into a trance-like state or is simply open to suggestion, hypnosis is useful in the clinic. Nash tells of a man who needed cystoscopy every 3 months for 5 years after removal of a bladder tumour. At his first check-up, "he had to be held down because of the pain". The man did not want general anaesthesia, and epidurals were risky, so Nash taught him self-hypnosis. Before the second cystoscopy, "he took 60 seconds to prepare himself, and that was it. The procedure was over in 10 minutes, and the six people who had intended to hold him down went for coffee".

Self-hypnosis "facilitates a sense of control and self-efficacy" in patients with cancer, adds psychologist Phyllis Alden (Derbyshire Royal Infirmary, Derby, UK). Alden uses adjunctive hypnosis to help patients who have nausea and vomiting associated with chemotherapy, and anxieties associated with other procedures and the cancer itself. "Hypnosis isn't magic but it is a valuable tool in a cancer centre."

Hypnosis is also helpful in burn centres, where the daily care of wounds can be more painful than the initial injury, says David Patterson (University of Washington Burn Center, Seattle, WA, USA). Large morphine doses are needed for these patients, but may not adequately relieve pain. Patterson, who has held a National Institutes of Health grant to research into hypnosis for the past 9 years, has used adjunctive hypnosis with loggers and other "hardy" types not typically thought of as hypnosis candidates. In those with intense pain, "dramatic effects" can be achieved, he says.

Barry Hart, a consultant psychologist in Scunthorpe, UK, has had similar experiences. For example, a dock worker with persistent pain and anxiety from a crush injury to his toes learned self-hypnosis and was able to return to work. Hart also uses hypnosis in patients with respiratory problems who become panicky because of breathlessness, and in those with chronic pain disorders.

Referring physicians should properly prepare patients for hypnosis and other psychological interventions, urges Hart. "If you have chronic pain because of a real physical problem and you're sent to a psychologist, you may feel like you're being written off. It should be explained that the pain is real, but that psychological factors can alter your experience of it."

Despite their enthusiasm, clinicians who use hypnosis warn against overstating the technique's benefits. Hypnosis can be easily learned and used as a tool by general practitioners and other health professionals, they note, but "hypnosis is a context in which you do therapy; it's not a therapy itself", says Hart. "Using hypnosis won't make you a good clinician; you have to be a good clinician, and then you can use hypnosis in a savvy way", cautions Nash. "I could teach a high-school student to do hypnosis in half an hour, but using hypnosis therapeutically is a very different story."

Marilynn Larkin

WASHINGTON More patches for the healthcare system

How much worse does it have to become for the failed patchwork approach to yield to another strategy? That is the question that has pervaded healthcare politics in the USA at least since the late 1960s, when the nation's medical bill equalled what was already regarded as a burdensome 6·9% of the gross domestic product (GDP).

Today, it is 14%—after a steady year-by-year rise from US$65 billion in 1969 to about $1 trillion now. Government forecasters now predict an increase to $2·1 trillion, equivalent to 16·6% of GDP, by the year 2007. But even with such colossal expenditures, which exceed those of any industrialised nation, about 43 million US citizens lack any other health insurance, and millions more possess limited coverage, often at heavy cost to their employers and themselves. Because of higher costs and, therefore, higher health-insurance premiums, the predicted increases in healthcare spending are now pushing more people into the perilous category of the uninsured and the underinsured. And, as in the past, politicians are responding with more patches.

Premium increases of 7–30 % for small firms have been requested by health insurers in New York State, according to the *New York Times*, which notes that 19% of the state's residents younger than 65 years lack any insurance. Nearly three-quarters of the state's uninsured hold jobs that do not provide insurance as a benefit of employment—the principal source of health insurance for most Americans. Jobs without insurance are generally low paying, putting privately purchased insurance beyond reach.

The White House has responded to the problem with a proposed tax credit for small firms that join together to purchase insurance for their employees. New York City is planning an insurance-purchasing alliance for small companies. But none of these measures, or the many others adopted in recent years, is expected to affect the rise in costs and the ensuing expansion in the ranks of the uninsured.

Nearly three-quarters of the state's uninsured hold jobs that do not provide insurance as a benefit of employment—the principal source of health insurance for most Americans

After Clinton's comprehensive healthcare plan died in Congress in 1994, managed care moved into the market with assurances of economy and service. The annual growth in healthcare spending declined, from 8·6% in 1993 to 4·4% in 1996, according to the National Center for Health Statistics. The causes of the decline are not altogether clear, but it is a widely said that in its opening phase, managed care cut waste in the system and also held down its charges to gain competitive advantage and control of markets. Whatever the reason for slower growth in spending from 1993 to 1996, the outlook is for a return to higher spending in the coming years.

How does the system endure when it leaves out more than 15 % of the population and poses heavy financial burdens on many who are included? The uninsured tend to be poor, unengaged by politics, and often, though not always, the beneficiaries of at least skimpy care through community clinics and other charitable organisations.

The remainder of the population is covered, in whole or in part, for medical expenses by a patchwork of public and private insurance programmes.

As healthcare costs climb again, patients are required to pay more, both for insurance and for portions of their care. Complaints about the cost of medical care, and, in particular, about sharp rises in the price of drugs are increasing. And managed care, as usual, is the butt of bitter stories and sharp jokes about services denied.

But, as yet, there is no sign of a political rebellion. And no one in politics today is proposing anything but more patches.

Daniel S Greenberg

TOKYO Minamata man's abandoned claim is investigated

The Japanese government has launched an investigation into reports that its officials withheld vital information relating to a compensation claim by a sufferer of Minamata disease.

According to the *Asahi Shimbun* daily newspaper, senior officials at the Environment Agency failed to disclose a 1992 report that recognised the suffering of one of the victims of the nerve disorder. As a result, the man's bereaved family were forced to abandon a decades-old claim for full compensation.

In response to the allegations, Kenji Manabe, the agency's director general, announced an internal investigation, which is expected to last about 2 weeks. "I consider it a serious matter and I will make public the results of our investigation", he said.

Minamata disease was caused by seafood contaminated with methyl mercury compounds which had been dumped into Minamata Bay, southern Japan, by the US chemical giant, Chisso Corporation Ltd, in the 1950s.

In May, 1956, the disease was discovered because there was an influx of patients with similar nervous-system damage to the Minamata Public Health Centre. The disease was not officially recognised until May, 1965. The Japanese government then released an official report on the pollution and disease in September, 1968.

Hundreds of people have died from Minamata disease and thousands of others continue to be afflicted by spasms, blurred vision, and speech disabilities.

The man, a former employee of Chisso, began to have trouble speaking and walking in 1962, but his claim to be recognised as a Minamata sufferer was rejected on the grounds that his symptoms were inconsistent with the disease. After he died in 1979, however, the agency recognised the findins of a necropsy that showed that morbid changes in his brain were caused by mercury poisoning.

According to the *Asahi*, this report was kept from the family, who were forced to accept a ¥2·6 million (US$ 22 857) settlement from Chisso in 1997. Other victims were paid up to ¥18 million.

Jonathan Watts

Israeli government to give marijuana guidelines

On Jan 20, the Israeli Health Ministry established a committee to provide doctors with guidelines for prescribing marijuana. Until now marajuana may only be given by special permit with the drug being provided by the police from confiscated supplies.

Boaz Lev, an internist and the ministry's deputy director-general for medical affairs, has asked the six-member committee of physicians, jurists, and public officials to define the medical conditions under which physicians will be permitted to prescribe marijuana, rather than continue on an ad hoc basis. "We want to establish the general guidelines and the optimum mechanism to provide marijuana to those who need it, but also to supervise distribution so the drug is not abused for non-medicinal use."

Marijuana can provide relief from severe chronic pain, muscular spasms, nausea, and loss of appetite caused, for example, by chemotherapy or AIDS. But Lev says "we don't want people to have to break the law to get treatment when no other drug is effective". Possession or trade in even the smallest quantities of the drug in Israel is punishable by a jail sentence.

Calls for a commitee to examine the medicinal use of marijuana have been made in the last few years. In 1995, at a meeting held at the Hebrew University of Jerusalem Rafi Mechoulam, a pharmacologist and a pioneer in marijuana research, suggested that an expert committee should look at the medicinal properties of the drug.

Earlier this year, a Knesset subcommittee, chaired by MK Naomi Chazan (Meretz) strongly recommended the Health Ministry establish an expert group. The committee also suggested that the safety and efficacy of the drug be tested in clinical trials. C hazan made it clear that "we do not expect the drug to be widely prescribed, and want to make it clear that it is being considered as a totally different issue from whether it should be legalized or decriminalized" the comittee said.

No change in the general policy about marijuana use is planned or expected.

Rachelle H B Fishman

Wellcome Trust research unit opened in Malawi

On Jan 22, the Universities of Malawi and Liverpool hosted a ceremony in Blantyre, Malawi, to mark the opening of their new research laboratories by the Rt Hon Harry Thomson, the Malawi Health and Population Minister. The two-storey facility, which was financed by the Wellcome Trust and commissioned during the centenary year (1998) of the Liverpool School of Tropical Medicine, will strengthen research capacity in Malawi. The laboratories are held in partnership between the medical schools of Liverpool and Malawi, a collaboration that has been developing over the past 10 years.

The universities joint research has already improved diagnosis and treatment of malaria in Malawi, and has yielded important contributions to WHO's recommendations for the treatment of the disease.

Most of the Malawi population is rural, poor, and dependent upon subsistence farming. Their health problems are those common throughout Africa, with infectious diseases among the main killers, and medical research is urgently needed. Malaria, the core research topic for the new laboratories, kills one million children a year in Africa and leaves many more brain-damaged. Other devastating, but potentially remediable, problems include diarrhoeal diseases, poor reproductive health, and pneumonia. The research team, led by Malcolm Molyneux from the Liverpool School of Tropical Medicine, includes scientists from several countries, including Malawi, the UK and the USA.

Research laboratories ready for action

Peter Winstanley

Canada issues strong anti-tobacco measures

On Jan 18, the Canadian Health minister, Allan Rock, unveiled a series of anti-tobacco measures including larger and stricter health warnings on cigarette packets.

The new rulings state that health warnings such as "Danger, exposure to hydrogen cyanide can lead to headaches, dizziness, nausea, vomiting and death" must cover 60% of the front of cigarette packets. The top of cigarette packets must state that it is illegal to sell cigarettes to minors. And inside packets there must be details of a toll-free phone number, or a website address, from which smokers can obtain help to deal with their addiction.

The list of cigarette ingredients, already found on packets, must be expanded to include nitrosamines, hydrogen cyanide, and 4-animobiphenyl, and must now be displayed on the front or the back of packets. Current health warnings such as "cigarettes are addictive" or "smoking during pregnancy can harm the baby"—which now cover 25% of the front of packets—will be moved to the side of the box.

Five new health warnings, such as "smoking can cause a slow and painful death", have been added to the exisiting list of statements tobacco companies must rotate on cigarette packets.

Rock also announced that a new public-awareness campaign will target smokers of 'light' or 'mild' cigarettes, which are perceived as being less dangerous than regular cigarettes. Health Canada studies indicate people who smoke such cigarettes inhale more deeply and smoke more often.

Later this year, Parliament will introduce new legislation requiring tobacco companies to report on all manufacturing, retailing, and promotional activities. Restrictions will be imposed on how retailers advertise tobacco products. Rock said, "It is high time we spend time and effort distinguishing between lawful communication with adult customers on the one hand and on the other, the insidious targeting of children". The government is likely to increase tobacco taxes in next month's budget.

A Liberal caucus committee will also investigate imposing a US $120 million levy on the tobacco industry to combat youth smoking.

Wayne Kondro

Euro will challenge finances of healthcare systems in Europe

The introduction of the euro will present challenges to the health systems within the EU, according to EU Commissioner Padraig Flynn. Flynn said last week that the introduction of the euro would throw light on the costs of healthcare in different parts of the Union: "The introduction of the euro is also likely to see cross-border movements of patients and purchasing of services from and in other countries."

While coins and notes will not be in people's pockets until 2002, cross-border commercial transactions are now, in effect, done in Euros. Although it is too soon to see what the effects are, the general reaction in the healthcare sector has been one of welcoming the transparency of prices that will allow purchasers to see more clearly where they can buy most cheaply.

"You have to be careful with the term comparison shopping", said Philip Berman, director of the European Healthcare Management Association—a network of organisations bringing together those interested in healthcare management issues in Europe. "It's more in relation to the purchase of goods rather than services because in Europe the pricing of services is seriously underdeveloped." He said that in the future there may be cost incentives for sickness funds or private-health insurers to encourage their members to go where treatment is cheaper. "I wouldn't expect this to involve large numbers except possibly at land border areas. So if you were living in Aachen, Germany, you might be willing to go to Maastricht in the Netherlands—it's just a few miles down the road so transport is easy and there's no difficulty with relatives going to visit."

Berman also predicts that the European Commission may have to look at hospital accreditation issues Europewide, if only because of the free movement of workers in the single european market. He also thinks there will be a desire to compare costs in the public-healthcare sector because policy planners will want to know if they are efficient and cost-effective.

According to the pharmaceutical industry, the euro is likely to mean stable prices because the transparency will allow comparison of prices in different countries. This, the industry believes, will lead to a more level playing field and ultimately the harmonisation of product prices throughout Euroland.

There are economic benefits for companies on the finance side, as the drug industry magazine, *SCRIP*, points out in its Jan 6 edition: "the pharmaceutical industry can probably take advantage of the euro from an early stage, generating savings from avoiding currency translation and hedging transactions."

Sacco Meulendijks, marketing manager for the European Medical Device Distributors Association predicts that price differences will decrease in that sector because of transparency, but points out that there is no single market in Euroland in respect to "healthcare systems, reimbursements systems, professional levels, and local legislation".

Karen Birchard

Euro summing-up

The switch to the Euro for electronic and paper transactions happened on Jan 4, 1999. 11 countries make up the Euro Zone or Euroland: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. Four countries remain outside: Denmark, Greece, Sweden, and the UK. Euroland has a gross domestic product which is 82% that of the USA and 151% that of Japan; and a population of 108% of the USA.

Deaths linked to third-generation contraceptives

At least six young New Zealand women who were taking third-generation oral contraceptives containing desogestrel or gestodene died of pulmonary embolism between January, 1993, and June, 1998.

This number is much higher than predicted by the Ministry of Health when it issued prescribing advice about the risk of venous thromboembolism in users of third-generation pills in July, 1996. Then, the ministry said that with a case fatality rate of 1–2%, one death would be expected every 1·5–2·5 years.

Because New Zealand has a voluntary adverse events reporting system, the actual number of deaths may be higher than recorded. The ministry can give no explanation for the numbers, but says the reporting system is "subject to natural fluctuation and reporting bias".

The government's Medicines Adverse Reactions Committee (MARC) warned the Ministry in early 1996 that the increase in prevalence of venous thromboembolism attributable to these pills could be "expected to be significant" in the New Zealand context. Third-generation pills had quickly gained a large market share in New Zealand. By 1996 about 150 000 women—80% of users of oral contraceptives—were using third-generation pills.

In 1996, the Ministry of Health did not follow the advice of MARC to advise doctors to "preferentially prescribe" older forms of the pill. The Family Planning Association and the Royal College of Obstetricians and Gynaecologists opposed the advice so the wording was modified to "consider prescribing".

The Ministry has now reiterated its advice from 1996. Coroners' reports are being studied by researchers at the Otago School of Medicine to try to ascertain the full picture. MARC will be reviewing significant new data at its first meeting of 1999.

Sandra Coney

UK beef-on-the-bone ban to stay?

Unconfirmed reports in the media last week alleged that the new Chief Medical Officer for England and Wales, Liam Donaldson, has privately recommended that the Ministry of Agriculture should continue to ban sales of cuts of beef that contain bone. If correct, this recommendation flies in the face of moves to have the ban lifted, and is based on no new scientific evidence.

The ban started in December, 1997, after the Spongiform Encephalopathy Advisory Committee reported that, in cattle deliberately infected with bovine spongiform encephalopathy, infectivity was detected in the dorsal root ganglia. SEAC concluded that the risk to human health of beef with the bone in situ was vanishingly small, but the ban went ahead and proved to be a public-relations disaster.

Sarah Ramsay

Indian welfare minister orders compulsory HIV testing for children in care

On Jan 15, Krishna Tirath, Delhi's social welfare minister, ordered compulsory HIV testing of all children living in government care-homes. This order violates the national policy that prohibits compulsory HIV testing. Tirath also recommended voluntary testing of women who live in government care homes.

The National AIDS Control Organisation (NACO) and non-governmental organisations have termed the move "an encroachment on human rights of children". Tirath argues that "since women and children are brought to these homes from 'red-light' and other such areas, we want to test them for HIV. After all, we take steps to save these children from diseases like polio and tuberculosis, so why can't we test them for HIV?" Tirath adds, if children are HIV positive, "we can give them proper treatment and nutrition".

The Joint Action Council of NGOs claims the initiative flouts all national and international norms on testing. "The minister probably does not realise that there is no recommended medical attention for HIV positive people, and hence there could be no justification for testing on the grounds of providing treatment."

The testing policy adopted by the central health ministry and NACO states that "no individual must be made to undergo mandatory testing for HIV". The exception is foreign students who plan to stay in the country for more than a year. Blood donors and those involved in epidemiological surveys are tested anonymously.

Durgadas Sengupta, a NACO consultant said "we can't do anything more as health is a state subject". Although Tirath's concerns are valid, "compulsory testing can't be done".

Dinesh C Sharma

National Institutes of Health to fund stem-cell research

On Jan 19, the US National Institutes of Health's director, Harold Varmus, said that his agency would start funding human embryonic stem-cell research.

The US Department of Health and Human Services (HSS) ruled that such research does not violate the ban on use of federal funds for embryo and fetal-tissue studies. HHS General Counsel Harriet Rabb said that the ban for embryo research would not apply to stem cells "because such cells are not a human embryo within the statutory definition". Cells extracted from aborted fetuses could be used as well, but would be subject to federal and state guidelines.

"We have reached a conclusion based on the law that it is appropriate for the NIH to support this research and we intend to do so", Varmus told the National Bioethics Advisory Commission. He asked the Commission to help the NIH set a moral compass for proceeding and asked for help on establishing guidelines by March 1. Research will be monitored by a new NIH oversight board.

John Gearhart of Johns Hopkins University, who has cultivated a stem-cell line from fetal tissue, said NIH funding would cut years off his research and give the subject credibility. "There's the perception that by not having public funding, there's something wrong."

Daniel Perry, executive director of the Alliance for Ageing Research, also praised Varmus. "It is vitally important that the view expressed by Dr Varmus today should prevail in federal policy." Anti-abortion organisations continue to oppose stem-cell research because source cells must be taken from aborted fetuses.

Alicia Ault.

AMA fails to regain credibility after Lundberg dismissal

Outrage and confusion greeted the news that George Lundberg had been fired from his 17-year position as editor-in-chief of *JAMA* (see *Lancet*, Jan 23, p 252).

The World Association of Medical Editors "unreservedly" condemned the AMA. David Sackett (Oxford, UK), a long-time contributor to *JAMA*, asked whether "it was too late for you [E Ratcliffe Anderson, executive vice-president of the AMA] to regain the credibility of your journal and the respect of your colleagues around the world by reversing this dictatorial decision?"

The Chicago Tribune accused the AMA of "schizophrenia" in its thinking: it could not be a "jealous guardian of a nation's health and of its own members' finances", it noted. The International Committee of Medical Journal Editors, due to meet in Ottawa in May this year, issued a statement on editorial freedom and integrity, describing Anderson's decision as a "serious infringement of editorial freedom." This statement was signed by Richard Glass, *JAMA*'s current interim co-editor.

26 editors at *JAMA*, 10 editors of the AMA's archive journals, and 16 members of *JAMA*'s editorial board have also signed an editorial in the Feb 3 issue of *JAMA* stating that they "strongly disagree with the decision to summarily dismiss Dr Lundberg." Their statement leaves the positions of Anderson, Dr Randolph Smoak (chairman of the AMA's Board of Trustees), and Dr Nancy Dickey (AMA President) virtually untenable, if the integrity of *JAMA* is to be preserved.

Anderson responded to the *JAMA* editorial by issuing a separate statement on the AMA's website, but failed to answer the specific charge that he had intruded inappropriately in the journal's editorial freedom and, by doing so, had seriously jeopardised the journal's editorial independence.

A search committee for the new editor has now been formed. Drummond Rennie, deputy editor of *JAMA*, is a member and has called on editors worldwide to provide information about "how the system of governance works at your society and journal?" He asks, "what checks do the owners have over the editor? By what system is that editor's performance measured? What process do you have in place for the removal of an editor? What safeguards are there in place to guarantee editorial independence and the stability of the journal?" The AMA has yet to provide answers to these questions.

Richard Horton