RANDOM SAMPLES

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At risk. Pregnant women at a rural clinic in Malawi.

An Anti-HIV Vitamin?

HIV has already infected some 1 million children worldwide. Now a new study of pregnant HIV-infected women in Malawi suggests that vitamin A may play a key role in determining whether women transmit the AIDS virus to their babies.

Studies have shown that pregnant, HIV-infected women transmit the virus to their babies 10% to 40% of the time, raising questions about why some babies become infected and others don't. Richard Semba and colleagues at Johns Hopkins School of Hygiene and Public Health thought that vitamin A deficiency, which is known to compromise the immune system, might be a factor. So, in collaboration with John Chiphangwi from Malawi Medical College, the Hopkins researchers measured vitamin A levels in 338 pregnant HIV-infected women, and tested their children for the virus once they were born.

As described in the 25 June issue of *The Lancet*, the researchers found that mothers who transmitted HIV had serum vitamin A levels averaging 0.86 micromoles per liter. Infected mothers who did not transmit the virus had levels averaging 1.07 (1.05 or less is considered vitamin A deficiency).

"This is the light bulb going on and illuminating an area where a lot needs to be done before we can answer the questions it raises," says Anne Willoughby of the National Institute of Child Health and Human Development, who cowrote an editorial accompanying the Semba paper.

It's far from clear how vitamin A might affect HIV transmission from mother to child. Still, in Willoughby's editorial, she suggests that treating pregnant women with vitamin A might lower transmission rates. Semba is already drawing up studies to test that strategy.

ILLUSTRATION: TERRY E. SMITH

Steak-Lovers' Health at Stake?

Vegetarians have long contended that their meatless diets lead to longer and healthier lives. But studies attempting to examine this claim have often fallen victim to a common fault: Members of the experimental (vegetarian) and control (omnivorous) groups differed in socioeconomic class, degree of obesity, and smoking and drinking patterns, making it difficult to tease out the true diet effects.

Now a team of researchers in England and New Zealand has attempted to sort out the confounding factors and in the process has offered more support for the vegetarian cause. Over 6000 vegetarians and fish eaters volunteered for the study and then recruited 5000 meat-eating friends and relatives for the control group, so that lifestyles would be similar. In the analysis, the investigators also controlled for smoking, weight, and social class. The results, which were published late last month in the *British Medical Journal*, found that vegetarians are 40% less likely to die of cancer than their meat-eating relatives and friends, and overall mortality rates are about 20% lower among non–meat eaters.

Nevertheless the study is not likely to be the last word on the diet debate, says Jan Vandenbroucke, clinical epidemiologist at Leiden University Hospital in the Netherlands. He points out that there were more older men among the meat-eaters, possibly accounting for more cancer deaths. He also says the "healthy volunteer" effect may have been operating on the vegetarians: Volunteers for the study may have felt particularly healthy and were thus enthusiastic to prove the positive aspects of their self-imposed regime.

Speeding Up Peer Review

British academic researchers have grown used to waiting 6 months or more to find out whether their research proposals will be funded. But now, three new funding bodies—spawned by a reorganization of the United Kingdom's research council system—have announced leaner systems that should be quicker as well.

The Science and Engineering Research Council had used a grant-review system that involved as many as four committees. But on 1 April, its $850-million-a-year research portfolio was distributed across the three new agencies: The Biotechnology and Biological Sciences Research Council, the Engineering and Physical Sciences Research Council, and the Particle Physics and Astronomy Research Council. And now the new councils have each settled on review systems that rely on just one tier of committees, which will rank proposals based on reports mailed in from expert referees. Whether the new structure will ultimately prove faster remains to be seen.

French Gene Hunters Face Hunting Limits

Call it an incentive to work quickly. If the French government accepts new proposals from a panel considering the "ownership" of DNA samples from disease-affected families, the country's gene hunters might be obliged to make their samples generally available before their research is completed. That carries a risk: Other investigators could publish ahead of them.

The panel that produced this proposal, chaired by biochemist Pierre Louisot of the medical research agency INSERM in Lyons, was set up in March following an attempt by the U.S. company Millennium Pharmaceuticals Inc. to buy a period of exclusive access to DNA collected from diabetes-affected families by researchers at the Centre d'Étude du Polymorphisme Humain in Paris (*Science*, 18 March, p. 1553).

The Louisot panel's proposals include a ban on researchers or institutes selling access to DNA. But what's alarmed gene hunters, particularly those focusing on diseases influenced by many genes, is a suggestion that researchers make their DNA collections widely available about 3 years after starting to assemble a DNA bank.

"It can take 5 years to collect the DNA" from the large number of families needed to pin down the genetic components of complex disorders, says Jacques Mallet of the Centre National de la Recherche Scientifique in Gif-sur-Yvette, near Paris.

If general access to the DNA is mandated after 3 years, researchers who collected it in the first place fear that other labs could report on gene locations—and get credit for doing so—before the collectors themselves.