medicines and vaccines. Oxfam also wants to see an international fund established to subsidize drug purchases and delivery systems in the poorest countries.

In Norway this month (April) about 50 experts from around the world are meeting at a workshop organized by WHO and the WTO to discuss differential pricing as a means to ensure that the poor have access to essential drugs without undermining the international patents system — a system that gives pharmaceutical manufacturers an incentive to develop new drugs.

However, even at heavily discounted prices, many drugs still remain way beyond the means of low-income countries. WHO's director-general, Dr Gro Harlem Brundtland, says that no matter how low prices go, additional funding — in the form of development assistance and debt relief — will be needed to meet the costs of care for the poorest: "The private sector is showing it is willing to do its part to fight the HIV/AIDS epidemic. The onus is now on governments and international organizations to make sure the funds to pay for these drugs are made available and that health systems are strengthened so that they are able to provide the care needed. We are talking about a 500-fold increase in care that could translate to as much as US$ 10 billion per year. This is a great challenge for all of us." ■

Sheila Davey, *Geneva, Switzerland*

Lifestyle and Alzheimer disease — study strengthens link

African-Americans living in an industrialized US city are more than twice as likely to develop Alzheimer disease and other dementias than are Africans living in Nigeria, according to a study published in the 14 February *Journal of the American Medical Association.*

The ten-year study, a collaborative effort of researchers from both countries, compared the incidence rates of Alzheimer disease (AD) and other dementias in people over age 65 in Indianapolis, Indiana, in the US, and in Ibadan, Nigeria. A baseline survey identified 2147 African-Americans in Indianapolis and 2459 Yoruba residents of Ibadan who did not have dementia. Follow-up studies at 2 and 5 years found that 2.52% of the African-Americans eventually developed AD, compared to only 1.15% of the Yoruba; overall, 3.24% of the African-Americans developed any form of dementia (including AD), compared to 1.35% of the Yoruba. The rates found among the African-Americans are in the "higher range of previously published" rates, while the rates found in the Yoruba are among the lowest, reported the study's principal investigators, Dr Hugh C. Hendrie of the University of Indiana School of Medicine in the US and Dr Adesola Ogunniyi of the University of Ibadan.

The researchers did not draw conclusions as to why the disease rates varied, but postulated two factors: genetics and lifestyle. They found that a gene (apolipoprotein E), known to raise the risk of Alzheimer disease, occurred with equal frequency in the two groups. However, "in the African-Americans the gene is definitely increasing the risk for Alzheimer disease, while in the Nigerian group it doesn't seem to have an effect," Dr Frederick W. Unverzagt, a co-author of the study, told the *Bulletin*. As for possible lifestyle influences, the study found that the Yoruba have a "much lower prevalence" of vascular risk factors — lower cholesterol levels and fewer cases of diabetes and hypertension — than the African-Americans.

"Maybe the incidence numbers can be explained by a gene–environment interaction," says Unverzagt. "It could be that the ApoE gene is just not activated in certain environments." Follow-up studies, he says, will examine diet, activity levels, and social engagedness. "If factors like diet are found to influence the disease," says Unverzagt, "the public health implications could be tremendous. If modifying such factors could delay the onset of Alzheimer by 5 to 10 years, you could really forestall some of the looming public health problems posed by the disease."

The study is believed to be the first cross-cultural study of dementia to use the same methodology and the same group of researchers at different sites. Previous studies have compared rates from different countries, but drawing conclusions from such comparisons is often difficult because of methodological differences.

"Such cross-cultural studies are extremely difficult to do," Dr Denis Evans, director of the Rush Institute for Healthy Aging, in Chicago, commented to the *Bulletin*. "They've done a magnificent job with that. They carried out the same procedures 4000 miles apart. This is very encouraging for people who have thought about doing this sort of work."

In an accompanying editorial, Dr Lindsay Farrer of the Boston University School of Medicine, Massachusetts, says "preliminary evidence suggests that a high-fat diet may increase the risk of developing" Alzheimer disease and "studies have revealed that [Alzheimer] cases are less active physically than controls in early life." Currently, though, most experts say that the only established risk factors are genetics and increasing age. ■

Catherine Dold, *Boulder, Colorado, USA*

US health care takes a battering

The United States' health care system fails to deliver consistent, high-quality health care to its citizens, and without a major overhaul the problem will continue, according to a new report from the Institute of Medicine (IOM) of the US National Academies. The report outlines the problems hobbling the country's health care system and describes changes necessary to fix it.

"The American health care system offers the sophistication of a space station delivered with the efficiency of a third-world post office," says Dr Lucian L. Leape, a physician at the Harvard School of Public Health and a member of the IOM committee that drafted the report. The report blames "a highly fragmented delivery system that largely lacks even rudimentary clinical information capabilities" for the gap between the calibre of care possible and the quality typically delivered. The committee also criticizes a health care system that "frequently falls short in its ability to translate knowledge into practice and to apply new technology safely and appropriately."

The shortcomings the committee found aren't unique to the US. Dr Tessa Tan-Torres Edejer, with WHO's Global Programme on Evidence for Health Policy, says: "The few data that we have suggest that the same problems exist in just about every country, with some countries relatively worse, and some better off. Invariably, the countries that look for problems, find them." Australia and Mexico are two countries she recalls that conducted recent studies revealing malfunctioning areas of their health care delivery systems. "There are probably many others but these are not reported in the scientific press because they are meant for internal use."

The problems of the US health care system can't be resolved without a complete overhaul of the current system, the IOM committee argues. "The current care system cannot do the job. Trying harder will not work. Changing systems of care will." To this end, the committee established a list of guidelines for improving health care in the US. These include a shift toward patient-focused care. "Right now the system is designed around what doctors can deliver, rather than on the care that patients need," says Leape. The report says patients must be given greater control over their care, and greater access to current health information.

The report also calls for better communication between health care practitioners. "The big secret about the American health care system is that no-one is in charge," Leape told the *Bulletin*. He says the current system consists of separate care