

New report on corruption in health

The world's health systems are vulnerable to corruption in every country and at every level from central government to patients themselves, according to an encyclopaedic report into corruption released by Transparency International.

The *Global corruption report 2006* documents corruption on a vast scale in both rich and poor countries, and its enormous cost to public health. Each year hundreds of billions of dollars are siphoned from the world's US\$ 3.1 trillion annual health spending into private pockets, according to the report published on 1 February.

The *Global corruption report*, now in its sixth edition, draws attention each year to corruption in a particular industry or sector as well as providing a broader overview of corruption across the world.

This year's report which focuses on the health sector "will be the reference book for corruption and health for the next coming years," according to Dr Hans Hogerzeil, WHO's Director of the Department of Medicines Policy and Standards.

The report "clearly demonstrates by its examples that corruption is a worldwide problem, existing in both high- and low-income countries," he added. "Thus no country should feel offended and restrained to talk about it; most countries have reason to look critically at their current situation and should decide how they can promote good governance."

But Transparency International, a Berlin-based nongovernmental organization, was unable to arrive at an estimate of the amount lost globally to corruption, conceded Diana Rodríguez, one of the report's editors.

"Quantifying corruption in medicine is especially difficult because so many possible cases, like billing for unnecessary procedures, could also be put down to clinical error, or a simple mistake. There are also

grey areas, such as the hospitality and funding many doctors receive from the pharmaceutical industry that may or may not be considered corruption," Rodríguez said.

In country after country, however, the evidence suggests that losses of public funds are significant. In the United States, both Medicaid and Medicare — government-run health insurance organizations — estimate that 5–10% of their budget is lost to overpayment.

In Cambodia, researchers, health workers and administrators interviewed in July 2005 said it was widely assumed that between 5% and 10% of the health budget disappears before it is even paid by the Ministry of Finance to the Ministry of Health.

At the other end of the system, patients are frequently driven to

supplement formal health budgets with their own under-the-counter payments. Informal payments account for 56% of total health expenditure in the Russian Federation, a proportion by no means abnormal in former communist countries. The phenomenon is also widespread in Asia, Africa, and South America.

"These payments should not necessarily be condemned out of hand," said Rodríguez. "In many systems, health workers are so poorly paid that this is the only way they can make a living." Evidence of physicians' private expenditure in Poland suggests that informal payments nearly double the average doctor's reported income.

Yet in Bulgaria, Slovakia and the Czech Republic, doctors with the highest salaries received informal payments more frequently than those with lower status. And in Greece, major salary increases for doctors in the early 1980s brought no reduction in the frequency of informal payments.

Few countries devote more than 0.1% of health budgets to auditing and investigating corrupt practices. Yet when such policies are actively pursued, results can be dramatic.

The Counter Fraud Service, created in 1998 to protect the National Health Service in the United Kingdom, has halved losses to patient and physician

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Diana Rodríguez, Transparency International.



An unlicensed pharmacy in the Democratic Republic of the Congo, where the quality and validity of the drugs on sale can not be guaranteed.

WHO/M. Kokic

fraud in its seven-year existence, and sued pharmaceutical companies suspected of forming price cartels. The estimated savings amount to 13 times the agency's budget. (In 2003, it was reformed as the Counter Fraud Service and Security Management.)

An even more remarkable success story is the battle against counterfeit drugs in Nigeria. Counterfeit and substandard drugs have flooded the African market in recent decades, particularly since the arrival of HIV/AIDS, costing thousands of lives and encouraging drug-resistant pathogens.

Nigeria's National Agency for Food and Drug Administration and Control (NAFDAC) was formed in 1994 to address the problem. NAFDAC was ineffective in its first years. By 2001, when Dr Dora Akunyili was appointed to head the agency, neighbouring countries banned Nigeria's pharmaceutical products, drugs were being hawked on city buses in Nigeria, and a NAFDAC survey found that 68% of the drugs in the country were unregistered and therefore probably counterfeit or substandard.

Yet by 2004, a repeat of that survey found that the quantity of unregistered drugs had fallen by 80%. Dr Akunyili describes NAFDAC's success in an article in the *Global corruption report*. The agency first had to root out corrupt inspectors in its own

ranks. A huge increase in seizures of counterfeit drugs followed. A public education campaign helped consumers identify useless and dangerous products. Meanwhile the central government closed the entire border to pharmaceutical imports, bar a few carefully watched access points.

Dr Akunyili's work earned her

Transparency International's Integrity Award, numerous death threats, and one assassination attempt in 2003.

But criminals such as drug counterfeiters and crooked customs agents may prove easier to pin down than the creeping network of shady financial ties that pervades modern medicine in the West. Dr Jerome Kassirer, a former editor of the *New England Journal of Medicine (NEJM)*, contributed an article to the report documenting his own experiences with the long financial tentacles of the pharmaceutical industry.

"Throughout my time at *NEJM*, we saw a steadily increasing number of submitted articles that couldn't be published because of authors' conflicts of interest," he told the *Bulletin*.

In the United States, 90 000 pharmaceutical representatives ply doctors with gifts and junkets. The US\$ 2 billion spent annually just on free meals and other hospitality events would dwarf many health budgets in African countries.

"Yet the doctors receiving all these gifts are unanimous in insisting it has no effect on their practice," said Kassirer, a professor at Tufts University School of Medicine in the United States.

The available research suggests otherwise, he argues in his contribution to the report. In one study, doctors who requested additions to their hospital's drug formularies were found to be 9–21 times more likely than their colleagues to have accepted hospitality or funding from the drugs' manufacturers.

Kassirer also points to a famous decision by the US Food and Drug

Administration (FDA) to keep the drugs Vioxx and Bextra on the market after concerns were raised over cardiovascular risks. Most of the panellists on the FDA committee, it later emerged, had financial ties to the manufacturers. If these panellists had declared a conflict of interest and refrained from voting, the decisions would have gone the other way.

The web of payments can entrap whole governments, Kassirer said, for example by enlisting them to fight in support of the industry's corner against generic manufacturers.

But while every actor in the health system has opportunities for corruption, it is the behaviour of doctors that concerns Kassirer the most. "They disappoint me," he said. "There may be a perception that they are more ethical than [representatives of] other professions, but I see little evidence for it". ■

Owen Dyer, *London*

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WHO promoting good governance

Dr Guitelle Baghdadi, Technical Officer in WHO's Medicines, Policies and Standards Department, is coordinating a project launched in 2004 to promote good governance in medicines regulatory authorities and procurement systems in WHO's 192 Member States, to make these systems less vulnerable to corruption.

The project is funded by the Government of Australia. So far the three-step process has been implemented in eight Asian countries.

The first step is to assess transparency and vulnerability to corruption in a given country's public pharmaceutical sector; the second is to develop and implement national ethical frameworks promoting good governance; the final stage is to train national officials in the principles of good governance.

Commenting on the *Global corruption report 2006*, Baghdadi said: "This report provides additional evidence in an area where research, though growing in the last few years, is still limited. This is particularly true of the pharmaceutical sector".

"These findings are important for policy-makers worldwide to adjust their policies and promote anti-corruption strategies," Baghdadi said.



Unlicensed medicines on sale in the Democratic Republic of the Congo

Controversial new vaccine to prevent cervical cancer

Trials show that a new vaccine can prevent infection with the human papillomavirus (HPV) that causes cervical cancer. But will the vaccine benefit women in poor countries who — unlike their wealthy counterparts — have limited access to testing and treatment?

Almost half a million women develop cervical cancer every year; more than half of them die as a result of their condition.

More than 80% of the burden of this easily detectable and preventable disease is borne by developing countries, where cervical cancer accounts for 15% of all cancer deaths but which have only 5% of the world's cancer resources.

A woman in the United States has a 70% chance of surviving cervical cancer thanks to relatively easy access to Pap smears or tests to detect early signs of cancer, as well as follow-up treatment.

Not so for her counterpart in Thailand who has a 58% chance of survival, or India, where there is only a 42% chance of beating cervical cancer; in sub-Saharan Africa the survival rate drops to 21%. While 61% of women with cervical cancer in the developed world will survive because they have access to testing and treatment, only 41% of their developing world counterparts will get the treatment they need to survive.

The good news is that cervical cancer has joined a growing list of cancers that can be ascribed to infectious diseases, which can be identified and treated.

Great strides have been made in understanding the crucial role played by the human papillomavirus (HPV), particularly two strains — HPV16 and HPV18 — that between them account for 70% of cervical cancer cases.

Now a vaccine to prevent HPV infection is on the horizon that holds the promise of a radical reduction in the number of women who will be vulnerable to cervical cancer. In October 2005, Merck & Co., Inc. announced the results of its Phase III study on GARDASILTM.

The study comprised over 12 000 women in 13 countries who were given three doses of the vaccine within six months and were monitored for two years. The vaccine prevented 100% of high-grade cervical pre-cancers and non-invasive cervical cancers that were

associated with HPV16 and HPV18.

GlaxoSmithKline's CervarixTM is undergoing Phase III trials and has produced similarly startling results. Neither product has yet been approved for sale and many fundamental questions, such as the vaccines' cost, long-term efficacy, optimum dosage and age at vaccination, remain unanswered.

Even once the vaccines are on the market, the benefits of widespread vaccination against HPV16 and HPV 18 will take one to two decades to emerge, as vaccination is aimed at protecting girls before they become sexually active and cervical cancer can result from HPV infections that occurred years before they manifest as cancer lesions. In time, however, a vaccine has the power to change the face of cervical cancer prevention.

"Vaccination holds much promise for primary prevention of cervical cancer in the future. It will be well-accepted, but for that to happen the evidence of efficacy has to be firmly established and the cost has to be affordable to developing countries," says Dr Gauden Galea, Regional Adviser on

Noncommunicable Diseases at WHO's Regional Office for the Western Pacific.

Even for developed countries, it is too early to say what impact an HPV vaccine will have on the allocation of resources to combat cervical cancer. In Hong Kong SAR, for example, where over 60% of women have had at least one Pap smear, the potential advent of a vaccine has received a moderate response.

"The impact of the HPV vaccine will depend on the medical profession's and the public's acceptance of it, the timing and cost involved," says Dr Susan Fan, Executive Director of Hong Kong SAR's Family Planning Association, one of the largest providers of cervical cancer screening in the city.

"If there is sufficient evidence to justify the cost-benefit of such a vaccine, and its use is endorsed by relevant authorities such as the Department of Health's Advisory Committee on Immunization, the Association may consider introducing it."

Although the debate about the cost-benefit ratio of HPV vaccination has yet to begin, even further down the line is the potential for ethical or religious objection to a vaccine to prevent a sexually transmitted disease that is targeted at pre-adolescent girls.

HPV can be transmitted in other ways, but in order to cause cervical cancer there must always be contact with the cervix. That means that when HPV causes cervical cancer, it is a sexually transmitted infection (STI).

That's why news of a forthcoming HPV vaccine in the United States was greeted with protest from conservative Christian groups who argued that it would promote sexual promiscuity among children.

No one knows whether there will be objections to the vaccine along similar ethical and religious grounds in developing countries once the public debate reaches them as well.

"We were expecting that reaction from some groups but we don't think it will be a problem generally. It is difficult to say at this stage," says Dr Nathalie Broutet of WHO's Department of Reproductive Health and Research.

"Discussions are needed

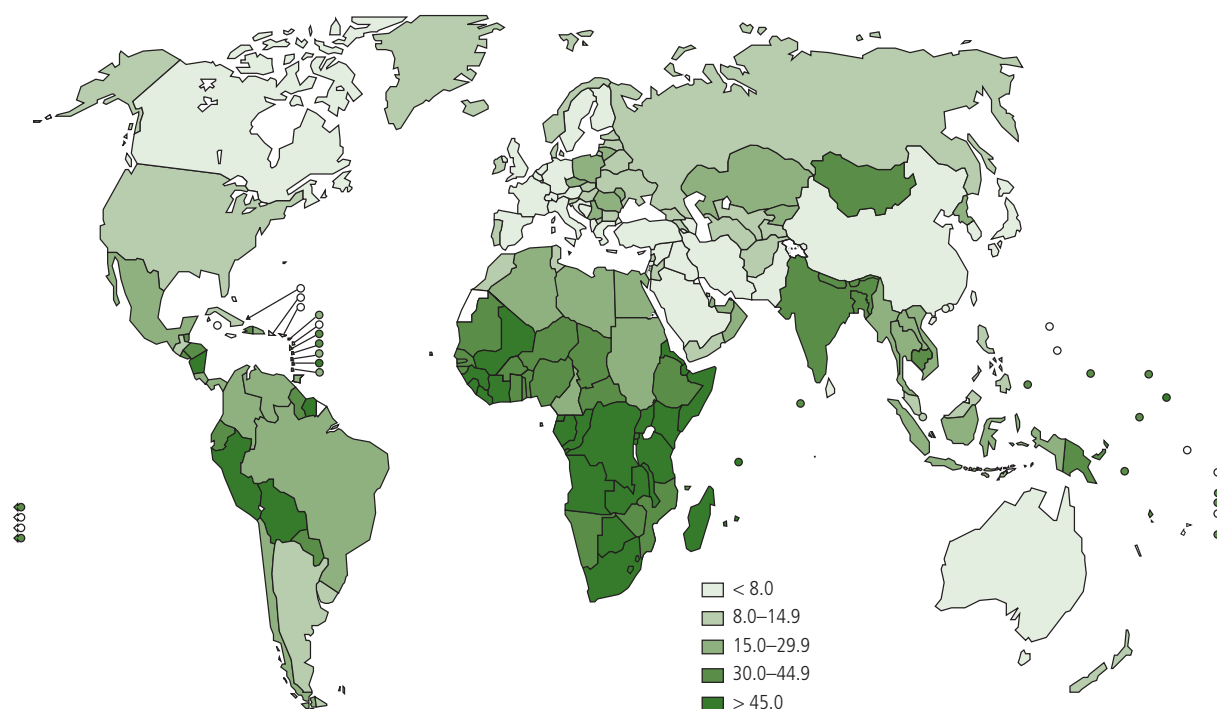
to determine whether this vaccine should be presented as an STI vaccine as well as a cervical cancer vaccine." This is particularly true for the Merck vaccine as it also covers HPV6 and HPV 11, the two strains which account for 90% of all cases of genital warts.

Moreover, clinicians who have worked hard to get women enrolled in screening programmes may be reluctant to bring the stigma of an STI to promotion campaigns for cervical cancer prevention. "There has been a real breakthrough in terms of understanding the virus and its relation to cervical cancer but not in terms of communicating that to the public," says Dr Catherine d'Arcangues Coordinator of

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Global incidence of cervical cancer, projections for 2005



Source: This map is based on mortality, incidence and burden of disease projections produced for *Preventing chronic diseases: a vital investment*. Geneva: World Health Organization: 2005. http://www.who.int/chp/chronic_disease_report/en.

For a description of the methods used to produce these projections see *Projections working paper* at www.who.int/evidence/bod (select fourth link on page).

WHO 06.02

WHO's Department of Reproductive Health and Research.

In many developing countries that breakthrough has been in getting cervical cancer recognized as a serious public health threat that can be effectively averted even in a low-resource setting. For decades the Pap smear test has successfully detected cervical abnormalities and cytological screening has played a vital role in cervical cancer prevention in the developed world. However, the test requires a sophisticated health-care infrastructure, including laboratories and highly-trained technicians to interpret the results, as well as multiple visits for testing, results and subsequent treatment, putting it beyond the reach of many women in the developing world.

"Together with the inconvenience of two or more visits per woman, plus the cost, there is also the issue of unreliable testing which can happen unless there are laboratories that are processing Pap smears in significant numbers. Pap smears are probably not as attractive as going for visual inspection with acetic acid (VIA)," says Galea.

At the JHPIEGO Cervical Cancer Prevention Program conference in

Thailand in December 2005, the key message that delegates took away with them was that VIA followed by immediate cryotherapy — the exposure of tissues to extreme cold to eliminate abnormal cells — can be a viable alternative to cytology in areas where it is prohibitively expensive to set up cytology services.

In Thailand, where cervical cancer accounts for 20.9% of cancer incidence — more than breast cancer at 16.3% — the disease is recognized as a public health problem, but the highest-risk group of women has been left out by Pap smear-based screening programmes.

"We have a shortage of cytopathologists and not enough coverage. Pap smears are done in urban areas and not in the rural areas where most of the high-risk women live," says Professor Khunying Kobchitt Limpaphayom of the Department of Obstetrics and Gynaecology at Chulalongkorn University, Bangkok.

“There is no question that early detection will continue to be a key element even once a vaccine is available.”

WHO is implementing a VIA-based see-and-treat approach in six African countries — Madagascar, Malawi, Nigeria, Uganda, the United Republic of Tanzania and Zambia.

As with other cancers, WHO's recommended approach to cervical cancer is comprehensive, comprising prevention, early detection and screening, treatment and palliative

care. The future addition of vaccine to the armoury in the fight against cervical cancer will be only one component of any successful strategy, says Dr Andreas Ullrich, Medical Officer Cancer Control at WHO's Department of Chronic Diseases and Health Promotion.

"Immunization if available will have to be added [in the area of prevention] to the other components of cervical cancer control. There is no question that early detection will continue to be a key element even once a vaccine is available." ■

Jane Parry, *Hong Kong SAR*