

problems.^{1,2} A process of informed consent for the receipt of research results would ensure that providing results is not a forced paternalistic act but rather a fully considered decision which takes into account these potential harms.

Moreover, it does not follow that participants who made an informed decision to see the results, and who later found this emotionally difficult, would be better off having not received the results. A study of survivors of retinoblastoma who were informed of risks of second cancers found that most participants wanted the information, even if it was upsetting.⁷ An informed decision to accept a summary of results should be left to the participant. The onus is on researchers to offer a summary of results, presenting harms and benefits, and provide appropriate subsequent supports for those who may have difficulty.

Dixon-Woods and colleagues found that many participants were interested in receiving individual rather than summary results. Most authors acknowledge that individualised results should have high validity and reliability before being provided to participants. This is particularly true, but not unique to, individualised results of gene testing, which may have far reaching consequences.¹⁰ In addition, the results should be clearly communicated. Only half of participants in this study found the leaflet clear, pointing to the need for extremely careful preparation.

We have recently shown that adolescents with cancer and parents of paediatric oncology patients overwhelmingly wish to be provided with results of research and feel they have a right to them. However, they also ask that results with “bad” connotations should be provided personally, not just by pamphlet.¹¹ This research needs to be extended to ascertain

additional nuances in other types of study design. While Dixon-Woods and colleagues correctly argue caution in providing results to participants, their study should not deter other researchers from meeting the ethical obligation to offer results and to subsequently provide them to those who want them, in a respectful and supportive manner.

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Competing interests: None declared.

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Funding the global control of bird flu

\$1.9bn may be peanuts, but it's more than anyone expected

Whatever resources you put in place—compared to the potential pandemic cost—it is peanuts. It is nothing.

Margaret Chan, WHO assistant director, at International Pledging Conference on Avian and Human Pandemic Influenza, Beijing¹

When a gathering of 800 representatives of some 100 countries and 20 international agencies attend a conference to pledge funds in support of a policy, and when the funds pledged are in excess of requests, something is afoot. “This is not charity. This is not just solidarity. This is self defence,” said Markos Kyprianou, European Union health commissioner.² A pandemic of avian influenza could affect up to a quarter of the world's population, cause deaths of millions of people, and plunge the economy into depression. Projecting the costs of this is difficult, but the World Bank estimates that the cost may be £800bn (\$1430bn; €1160bn) in the first year.

The pledging conference held in Beijing 17-18 January—sponsored by the People's Republic of China,

the European Commission, and the World Bank—raised some \$1.9bn; “peanuts” perhaps, but useful. It was more than the \$1.2-1.4bn the World Bank estimated would be needed for poorer countries to strengthen their veterinary and health services to deal with the potential threat of a pandemic. But it pales into insignificance when compared with the estimated £10bn losses to the Asian poultry sector alone.

The pledges of funds have come from the richer nations—\$334m from the United States, \$260m from the European Union, \$159m from Japan, \$45m from Russia, and \$42m from Australia—as well as from other countries and industry. Roche has pledged \$30m to provide a further two million doses of oseltamivir (Tamiflu). About 6% of the fund is to be allocated to reduce human exposure; some 22% to strengthen early warning systems; 26% for rapid containment of spread; 28% for capacity building; and 17% for research, including accelerated vaccine development. In addition, \$58m was set aside for stockpiles of antiviral drugs and personal protective equipment and supplies.³

The money will be distributed among countries that are most at risk and that have poor infection surveillance systems and laboratory facilities in both animal and human health sectors. Almost half of the funds will be spent in East Asia and the Pacific and on core programmes in Africa. The planned intervention comprises reducing human exposure to the virus, strengthening the early warning system, rapid containment, capacity building, and coordination of research and development.

The outcomes of last week's conference in Beijing need cautious interpretation. Given the enormity of the problem, the pledges may well be honoured. The finance pledged is but a promise to deliver, however, and previous pledges for global emergencies remain unpaid. For instance, of the sums pledged in response to the tsunami disaster, \$217m pledged by United States, \$70m pledged by the European Commission, and \$15m pledged by the United Kingdom remain unpaid.⁴

Investment in effective policies to control outbreaks and delay a pandemic would yield a manyfold rate of return. If this \$2bn fund reduced the impact of the pandemic by a mere 1% it would yield a fourfold rate of return in the form of costs avoided. But property rights to the benefits are diffuse and thus underinvestment is likely. The economic problem is not merely one of raising funds: it also extends to their deployment.

Cash donations will have to be translated into real resources such as staff, laboratory facilities, and drugs, and the logistics of their deployment must be established. Many agencies are involved, each with its own chain of command, goals, and procedures. Gaps in the chain of governance may lead to delays in reporting or lack of diligence, with catastrophic consequences.

Human resources will be crucial in managing an epidemic. The human capital embodied in experts cannot be replicated quickly, yet the resilience of this expertise in a pandemic will be difficult to maintain given a predicted average incidence of infection of 25%. Recently a team from the UK was congratulated for its speedy response during the outbreak in Turkey. But even these people would be hard pressed if there was a rash of outbreaks in their region. There must be

adequate "surge capacity" to cope with the volume of work. The ability to mobilise enough middle range scientists and laboratory assistants will be crucial, too—for example, by directing some of the pledged funding to the WHO programme for health security capacity development, which aims to improve competence in laboratory and epidemiological disciplines and to develop global surveillance.

Timely reporting of outbreaks of avian influenza is essential but difficult, given that domestic flocks represent the entire livelihood of many people and compensation is rarely available. Indonesia delayed a cull, although millions of chickens were infected, until they were sure that the H5N1 strain was involved.

Few decisions to report such outbreaks rely simply on scientific matters. Even infections that should be reported under International Health Regulations⁵ have been kept secret to protect trade or tourism. Beijing, for example, experienced a 94% drop in the tourist trade in 2003 because of severe acute respiratory syndrome (SARS). But the public health benefit of early intervention is substantial. The cull of all the poultry in Hong Kong (estimated at 1.5 million birds) within three days in 1997 reduced opportunities for further direct transmission of bird flu to humans and may have averted a pandemic. It was such a rapid response to an outbreak that last week's pledging conference was intent on facilitating. More funds—not peanuts—will be required in the short and long term if rapid control is to be ensured.

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Competing interests: None declared.

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Sex workers to pay the price

UK plans to cut street prostitution will threaten sex workers' health

In 2004 the UK Home Office published a consultation paper on sex work, after a review of the Sex Offences Act (2003). The paper, *Paying the Price*,¹ was criticised by specialist services for giving less priority to the health of sex workers than before and for focusing too much on issues of criminal justice, and by health researchers for its unethical use of questionnaires and interviews. The resulting Home Office strategy² published last week aims to challenge the view that street prostitution is inevitable; achieve an overall reduction in street prostitution; improve the safety and quality of life

of communities affected by prostitution, including those directly involved in street sex markets; and reduce all forms of commercial sexual exploitation.

The strategy looks to the controversial Swedish model that criminalises men who pay for sex, and uses police photographs of sex acts and possession of condoms as evidence of sex work. This discourages sex workers from using condoms and introduces tension and potentially violence between them and clients. The Home Office proposes a range of approaches for a variety of sex markets, based on the sex of workers and the locations

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BMJ 2006;332:190-1