diuretic and a statin for people with an overall risk of a cardiovascular event above 5% over the next 10 years — was shown to be highly cost-effective in all regions by the WHO-CHOICE project, the WHO chronic diseases report said.

Neal said: “Because the risks of side-effects from the components are very low and the potential benefits are very high, the polypill will be very safe. The goal will be to use non-physician health workers to identify and treat high-risk individuals which should decrease costs and increase access in resource-poor settings.”

Polypills are also expected to increase patient adherence. This has been shown with combination drugs for diabetes, hypertension and HIV/AIDS, according to a study published in the Bulletin in December 2004.

A study to find out if this is also the case in patients with established cardiovascular disease is to start recruiting from January to March 2006. The GAP, or Guidelines Adherence to Polypill study, set up by the George Institute for International Health, will randomize 1000 patients with established cardiovascular disease to a polypill-based approach or to standard care. The patients will be followed for two years.

A similar study of 600 patients is to start in New Zealand next year, led by Anthony Rodgers of the University of Auckland. Patients with a definite indication for all medicines, such as following a heart attack or stroke, will be randomized to polypill or conventional care. The main outcome measures will include compliance, blood-pressure and cholesterol levels.

Fixed-dose combinations are now a core component of care for people with HIV/AIDS, tuberculosis and malaria. As well as improving clinical outcomes, they simplify distribution of multiple medications, which can be an important advantage in resource-limited health-care settings.

Some public health experts say another way of improving access to medicines and treatment for chronic disease would be through public-private partnerships (PPPs). A report by a team from the London School of Economics and Political Science, led by Dr Mary Moran, found that PPPs have driven the recent considerable increase in research activity into so-called neglected diseases, such as malaria and tuberculosis.

After a time when few new therapies were introduced, there are now over 60 drug research projects under way. Three-quarters of these are conducted under the auspices of PPPs and should result in six or seven new drugs being developed by 2010.

There are no PPPs working in the area of chronic disease, a situation Rodgers, who is director of the Clinical Trials Research Unit at the University of Auckland, in New Zealand, wants to change. Rodgers is involved in early consultations to set up a PPP to make treatment for chronic diseases more accessible to people in need.

“We desperately need a not-for profit organization that enables public-private partnerships to make new medicines more available. Not just new technologies like the polypill, but also health-care delivery solutions.”

Jacqui Wise, Cape Town

Best defence against avian flu is to fight the virus in Asia

The spread of avian flu to Africa and Europe has triggered panic as misconceptions abound over the nature of the threat this poses to human health.

Farming practices, long-held lifestyle traditions and poverty-line economics all make recent outbreaks of avian flu in Asia a far bigger global public health threat than the westward spread of the disease into Europe’s poultry flocks.

For many rural Asian communities, backyard chickens and very small-scale poultry farms are part of the landscape. Children play in the same yard where the household’s flock scratch and where chickens that die are typically eaten in order not to waste a valuable source of protein.

A small child with ducks outside her house in Indonesia. As shown by this picture, families in many Asian countries live in close proximity to their poultry.
Every infection of poultry has serious consequences for the farmers concerned. Flocks must be culled in a wide radius around the area of infection and every person in contact with infected live or dead poultry is at risk of contracting the disease.

Whilst most western Europeans would get no closer to poultry than peeling away the shrink-wrap cover on a pack of supermarket chicken breasts, in Asia most of the 67 confirmed deaths from the H5N1 avian flu virus have been attributed to direct contact with infected birds, such as the slaughter, de-feathering, gutting and preparation of chicken and duck. All 130 known human cases of H5N1 have occurred in Asia.

In Asia, bird flu outbreaks have been reported over the last two years in Cambodia, China, Indonesia, Japan, Kazakhstan, Lao People’s Democratic Republic, Malaysia, Thailand and Viet Nam, the latter having borne the brunt of human infections with 42 WHO-confirmed deaths out of 92 cases since December 2003.

Many governments in the region are posed with a dilemma over how much scarce public funds should be poured into the fight against avian flu. Governments in the region have been making efforts to educate the population about preventive and surveillance measures, but misconceptions abound about the disease, both in poultry and humans.

Education campaigns in the affected countries are still not getting through to the individuals most at risk. Common misconceptions that owners of poultry have include the mistaken belief that it won’t happen to them, that chickens frequently fall sick and that this time is no more serious than any other time, according to Peter Cordingley, WHO’s spokesman for the Western Pacific Region.

“Worse than any misconceptions, though, is the continuing ignorance in Asia, the fact that after two years people still know so little about risky practices. The latest case in Thailand confirmed by WHO was a woman who apparently cleaned out the muck from a poultry shed where her husband’s chickens had died mysteriously, and this was 50 km or so from Bangkok,” he said.

Dangerous misconceptions also exist at government level including “the belief early on by some governments that the outbreaks could be covered up and fixed, thus protecting the poultry industry without endangering public health and that vaccinating poultry is a quick, inexpensive and effective way of preventing or responding to outbreaks. Vaccination may stop the spread of the virus but does nothing to eliminate it. Culling is the only option, backed up, where appropriate, by vaccinating,” said Cordingley.

China, where H5N1 avian flu originated, is grappling with a resurgence of the disease among poultry and has confirmed the first two human cases of infection with the virus on 17 November.

National government policy is at odds with what happens at the grassroots level because of patchy reporting at local level of outbreaks elsewhere in the country. Local level officials also fear incurring the ire of their superiors by being open about suspected or confirmed outbreaks and are reluctant to deal with the economic consequences of any decision to announce an outbreak and cull poultry.

“There has to be even greater public awareness. Even though bird flu is not new to China and has been widely reported over the last two years, news of every outbreak does not reach everyone and one of the biggest dangers is that this might lead to a sense of complacency,” said Roy Wadia, WHO’s spokesman in China. “But now that you’ve got confirmed human cases, people are taking more and more notice, and even getting scared.”

“The central government sees the overall problem in getting the right messages out, but it’s a big country with a way of life that has existed for thousands of years. People and animals live in very close quarters in rural areas, and backyard farmers move their flocks when they hear there’s a chicken cull under way. The other issue is one of compensation,” Wadia added.

There are also powerful and potentially harmful misconceptions about what medical options there are to prevent or treat human cases of either H5N1 avian flu or a reassorted avian flu pandemic strain.

“The public may perceive seasonal flu and avian flu to be the same and may also wrongly believe that influenza vaccine could prevent human beings from contracting avian flu.”

If the situation is not brought under control in the backyard farms in this part of the world, the virus will continue to spread around the world year after year. Asia is ground zero and still represents the greatest threat to global public health.

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Peter Cordingley, a spokesman for WHO’s Office for the Western Pacific Region based in Manila.
Quake victims reach help too late to save crushed limbs

The Pakistani government and WHO have appealed for US$ 27 million, but raised just under half of that for the area’s immediate health-care needs.

When Mazhar Ali, 22, was finally airlifted to the District Headquaters Hospital, Manshera, a frontline hospital for the injured of the devastat- ing 8 October earthquake in northern Pakistan, doctors told him it was too late to regain full use of his arm.

Ali was brought by helicopter to the hospital from his home in the remote mountain village of Paras in Balakot, one of the areas worst hit by the earthquake. He is one of countless patients who were airlifted from that area to hospital since the earthquake.

He said he had no one to talk to and had no idea where his family members were, but that he was lucky to be alive. “I don’t have any place to go. Our house … completely collapsed and four members of my family have died,” Ali said.

“We didn’t know whether we would survive. We relied on burning wood we had gathered from our collapsed roof to warm ourselves. We had no food except for corn [on the cob],” he said, looking at his paralysed right arm with an expressionless face.

More than 73 000 people died, about 69 000 people were seriously injured and a further 59 000 suffered minor injuries in Pakistan as a result of the quake, which had a magnitude of 7.6 on the Richter scale and was the most powerful to hit south Asia in 100 years. More than three million people need emergency shelter to survive the harsh Himalayan winter, Pakistan’s government said.

Half of the 564 hospitals and dispensaries in the quake-hit area were completely destroyed, while a further 74 were partially damaged, according to WHO. But even before the earthquake, the health-care system in some particularly poor areas was inadequate. Pakistan’s Ministry of Health (MoH) estimates it needs US $651 million to rebuild the health-care system, including construction of quake-resistant hospitals. Meanwhile, WHO and the Pakistani government...