## *The Intergovernmental Organisations Committee*

The Intergovernmental Organisations Committee was appointed by the House of Lords in November 2007 with the orders of reference "to consider how contemporary issues of international policy are addressed through United Kingdom membership of intergovernmental organisations (excluding the European Union), including their impact and value for money".

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The Report of the Committee is published in Volume I, HL Paper 143–I.
The Evidence of the Committee is published in Volume II, HL Paper 143–II.

## FOREWORD—What this report is about

We were appointed in November 2007 as a new ad hoc Select Committee of the House of Lords to review the effectiveness with which intergovernmental organisations (IGOs) are operating in specific fields and how the UK is making use of its membership of those organisations to ensure that their objectives are being met. For our first inquiry we have examined how IGOs are tackling the global spread of infectious diseases.

The twentieth century witnessed remarkable advances in many parts of the world in standards of public health and in the conquest of killer diseases, such as smallpox and poliomyelitis. However, during the second half of the century the advent of globalisation (in particular, increased international trade and travel) and changes in human lifestyles (for example, greater human-animal contact) have enabled new infections to emerge and to spread much more rapidly around the world. The onset of HIV in the 1980s and the outbreaks of SARS and avian influenza in the 1990s are striking, but by no means the only, examples. On average, a previously unknown infectious pathogen emerges somewhere every year. At the same time a number of infectious diseases, including some—such as tuberculosis and malaria—which were previously close to eradication, have developed resistance to antibiotics and in their resistant form they are much more difficult to treat. These problems cannot be tackled solely by States within their own borders: effective intergovernmental action is needed.

In recent years there has been a substantial and welcome upsurge in funding for infectious disease control from governmental, intergovernmental, charitable and private sources. At the same time, however, there has been a significant increase in the number of organisations involved, with the result that the landscape of international health has become, in the Government's words, "crowded and poorly coordinated". We have taken evidence from many of these organisations, and it is clear to us that, while there is an urgent need for rationalisation of effort, it is unrealistic to think in terms of imposing coordinating structures from above. The process has to be evolutionary rather than revolutionary, but it needs leadership. There is no doubt in our mind, and in the minds of most of those from whom we have taken evidence, that that leadership function must rest with the World Health Organisation (WHO) and that, given appropriate strengthening of its management arrangements, WHO's remit and resources should be developed in order to encourage and support collaboration and rationalisation among the many actors on the international health stage.

Many of the new initiatives for tackling the spread of diseases are vertically-based—meaning that they are targeted at combating specific diseases, or groups of diseases, rather than improving the quality and quantity of health systems generally (the horizontal axis). While vertical disease-control campaigns are necessary to bring serious outbreaks of disease (such as HIV, malaria and tuberculosis) under control, they are likely to prove unsustainable without parallel investment in horizontal health care structures. Vertical campaigns may have the side-effect of strengthening general health services, but conversely the recruitment of health care staff in developing countries to fight specific diseases can denude basic health services of the doctors and nurses they need to fulfil their normal functions. There is therefore a need for vertical campaigns to be structured and managed in such a way that they complement essential strengthening of horizontal infrastructures. The need for more horizontal investment is particularly acute in the area of infectious disease surveillance. Though Britain and many other countries have effective surveillance systems and though WHO operates a competent international surveillance network, many developing countries are seriously deficient in this respect. On the basis that a chain is as strong as its weakest link, there is a need to direct greater investment into this vital area of global disease control.

Similarly, there has been a tendency in recent years to focus more on the treatment of infectious diseases and less on their prevention. Such an imbalance of investment is not only not cost-effective: it can be counterproductive. For example, while the provision of antiretroviral drugs has done much to preserve the lives of HIV sufferers, by this very fact it risks increasing the incidence of the disease unless it goes hand in hand with effective prevention measures. We consider that the Government should use its influence within the relevant IGOs to achieve some rebalancing of investment.

A number of other issues have come to our attention where we consider that action is needed. One of them concerns the close linkage between human and animal diseases. We have been told that three out of four new emerging infections in humans have come from animals. Yet there is little coordination between the intergovernmental systems for conducting surveillance of human and animal diseases, to the point where, as has been shown in the case of avian influenza, we are all too often failing to pick up animal infections until they have jumped the species barrier to humans. There is a need for better coordination here at the intergovernmental level.

The UK is a highly-respected player in the field of international health by reason of its sound policies, its high technical expertise and its commitment of money and staff. The Government is developing a Global Health Strategy involving all Whitehall departments with an interest under the leadership of the Department of Health. While we commend this imaginative initiative, we hope the Government will give due weight, in regard to leadership issues, to the expertise, resources and experience of the Department for International Development and the Foreign and Commonwealth Office in addressing the international dimensions of the Strategy.

We feel it appropriate to conclude on a sobering note. We have been told that an influenza pandemic is overdue and that, when (rather than if) it comes, the effects could be devastating, particularly if the strain of the virus should be of the H5N1 variety that has been seen in South East Asia in recent years. While much progress has been made in the last ten years in improving global surveillance and response systems, much remains to be done if we are to detect new strains of the virus and counter them before they have had the chance to spread. That requires more intergovernmental investment in potential source countries in surveillance programmes. This is unlikely to hit the headlines and its impact may not be immediately apparent, but it is vital to us all.

# Diseases Know No Frontiers: How effective are Intergovernmental Organisations in controlling their spread?

## CHAPTER 1: INTRODUCTION

1. We were appointed by the House for the 2007–08 session of Parliament "to consider how contemporary issues of international policy are addressed through United Kingdom membership of intergovernmental organisations (excluding the European Union), including their impact and effectiveness and value for money".

### Defining Our Role

2. The European Union (EU) was excluded from our terms of reference because the House already has a European Union Committee. What this exclusion precludes is an in-depth examination by us of EU activity in a given field. It does not, however, preclude exploration of the boundary line between EU and other intergovernmental activity: indeed, it is essential to our task of examining action by non-EU intergovernmental organisations that we should look at how such action fits together with what is being done under the auspices of the EU.

3. We also recognised at the outset that our focus was to be on *intergovernmental* organisations (IGOs) rather than on international ones. The distinction is important. There is a wide range of organisations (for example, OXFAM, *Médecins Sans Frontières* or the International HIV/AIDS Alliance) whose activities are international in character. IGOs, on the other hand, are organisations (such as the United Nations, OECD or NATO) whose members are national governments. Even here, however, there are distinctions to be drawn, in particular between intergovernmental action, when a number of governments agree to collaborate for a common purpose, and action by intergovernmental organisations, where a recognised IGO acts in the name of and on behalf of all its Member States. Our focus is on the latter.

4. We interpret our role as being to examine how the British Government is making use of its membership of such organisations in order to achieve objectives which meet both UK interests and those of the international community generally. In order to be able to address this question we have found it necessary to examine the effectiveness of the IGOs themselves and the way they function. But it is important to recognise that in doing so our primary objective has not been to attempt to audit the performance of the organisations but to reach a view of how effectively UK influence is being brought to bear within them and whether appropriate value for money is being obtained.

5. We acknowledge that in the post-Cold War world there is much discussion about the need to reform IGOs. Structural reform of IGOs is, of course, the responsibility of the governments who are their members, but in much of the writing about this problem there is a wide recognition that creating new ways of working within and between existing IGOs can be an important part of the reform process. Indeed it has been pointed out to us that creating and developing networks between existing IGOs and NGOs is a useful way of getting international support for them. The British Government is a major participant in these organisations and the Government's policy can have an effect greater than the financial input alone, although that is also very significant.

## Choosing Our Inquiry

6. We considered a number of areas of IGO activity which would be suitable for inquiry, including Peacekeeping, Human Trafficking, Disarmament and Controlling the Proliferation of Weapons of Mass Destruction. One subject, however, commanded clear support as deserving a clear-cutting and urgent inquiry—namely, controlling the global spread of infectious diseases.

7. It was once thought that, with rapid advances in medical science, the twentieth century had seen the main killer diseases—such as smallpox, poliomyelitis, tuberculosis and malaria—brought under control. That is not, however, what health or national security experts now think. Medical science has indeed advanced, but lifestyles have changed substantially and sometimes in a way that threatens to undermine its achievements. During the last 50 years trade and travel between nations have increased at a considerable rate—the number of international tourist journeys alone rose from 25 million in 1950 to over 800 million in 2005, while world trade has grown more than 20-fold over the same period. As a result infections which were once limited to specific parts of the globe are now able to spread more easily and rapidly to others, often before we are aware of their potential. Within many poorer countries there has been substantial urbanisation, which obliges millions of people to live together in close proximity and often poor conditions of hygiene and which creates a fertile ground for the spread of infectious diseases. There have also been significant changes in agricultural practices and ecology generally, not to mention changes in climatic conditions.

8. There is also increasing evidence that a number of killer diseases, including tuberculosis and malaria, are becoming resistant to once-effective antibiotics. And, of course, there are new and deadly infections emerging. Though most publicity has been given to the Human Immuno-deficiency Virus (HIV), which if uncontrolled often results in the lethal disease of AIDS, there are many others, including SARS (Severe Acute Respiratory Syndrome), ebola and avian influenza, which, unlike HIV/AIDS, have the potential to cause rapid and devastating sickness and death across much of the world if they are not detected and checked in time.

9. For these reasons we decided as a committee that our first priority should be to examine the action which is being taken through IGOs to control the global spread of communicable diseases. We were agreed, however, that we should not look at intergovernmental management in a vacuum but that it would be helpful if we could relate what was being done to certain specific diseases. This, we hoped, might provide us with working illustrations of the problems which the relevant IGOs are facing and of good and bad practice in

dealing with them. The diseases we selected are all highly infectious and all pose serious problems for global health if not controlled. They do however differ from each other in some important aspects and thereby furnish examples of different issues.

10. **HIV** is an infection which was recognised in the 1980s and has spread globally since then. In 2007 some 33 million people were estimated to be living with HIV. During the same year 2.5 million people became newly infected and 2.1 million people died of AIDS. HIV is an infection which, though concentrated mainly in sub-Saharan Africa and parts of Asia, has spread worldwide. But, unlike the other three infections on which we have focused, its spread is largely attributable to lifestyle factors, in particular sexual behaviour. There is as yet no cure or vaccine, though antiretroviral (ARV) drugs have proved to be effective in retarding the onset of AIDS and thereby prolonging the lives of those infected.

11. **Pandemic influenza** might be said to be at the opposite end of the spectrum. At the time of going to press, there has been no recent outbreak of pandemic influenza reported. Historically, however, such outbreaks have occurred on average three times every century, and the last outbreak was in 1968. The last two pandemics (1958 and 1968) were caused by relatively mild strains of the virus, but the next one could have more serious consequences, especially if it should come in the form of a virus, such as the H5N1 variety, which is common in birds and poultry, which has already jumped the species barrier to infect humans and which might at some point in the near future become capable of human-to-human transmission. The Government's evidence to us on this was sobering:

> "While there has not been a pandemic since 1968, another one is inevitable, whether or not it arises from H5N1. Estimates are that the next pandemic will kill between 2 million and 50 million people worldwide and between 50,000 and 75,000 in the UK. Socio-economic disruption will be massive" (p 2).

In other words, we have in pandemic flu an infection which is not yet with us but which, when it arrives, is likely to have a devastating, if relatively short-lived, impact.

12. **Tuberculosis (TB)** and **malaria** might be said to fall within these two extremes. Here we have infectious diseases which have been around for centuries, and steady progress was being made until about 30 years ago towards eradicating them. In both cases effective antibiotics had been found and, in the case of malaria, house-spraying with DDT was proving effective in controlling the mosquitoes which spread the disease. In both cases, however, the disease has begun to develop resistance to conventional antibiotics and there has been some fall-away in DDT spraying as a result of fears of side-effects for human health and the environment. In addition, the rise of HIV has had a considerable impact on the incidence of TB, which is present harmlessly in a large proportion of the world's population but is able to develop into pathogenic form where natural immunity to infection has been compromised. According to the London School of Hygiene and Tropical Medicine, TB is the most common cause of death in people infected with HIV.

13. In selecting these four diseases, therefore, as illustrations of intergovernmental health management we have attempted to cover a

spectrum of disease types. There are, we recognise, many other serious infections, including ebola, SARS, pneumococcal disease and leprosy, and our choice does not imply that there is not a need for concerted intergovernmental action to deal with them. The ones we have selected are intended simply as working examples of how IGOs are going about their task.

## Acknowledgements

14. Our Call for Evidence, which was issued on 10 December 2007, is shown at Appendix 2. In response we received 56 submissions of written evidence, and we subsequently took oral evidence, in London, Geneva and Paris, from 34 persons or organisations. Volume II of this report shows all the evidence received, both written and oral. We would like to thank all those who assisted us in this way: without their help our inquiry could not have been carried out.

## CHAPTER 2: INFECTIOUS DISEASES

15. This inquiry is about how Intergovernmental Organisations (IGOs) are tackling the spread of infectious diseases. However, before examining the IGOs themselves it is necessary to consider some important aspects of disease control. Infectious diseases cannot be considered in isolation from the world in which they occur and spread, and their control is a multi-faceted process which goes far beyond the popular image of doctors giving injections or pills to sick people. In this chapter therefore we address some of the key factors influencing the spread and control of infectious diseases.

### The Wider Picture

16. In 2000 the United Nations adopted 8 Millennium Development Goals (MDGs) for achievement by 2015, and at the UN Summit in September 2005 these goals were re-affirmed. Three of these—reducing childhood mortality, improving maternal health and combating HIV/AIDS, malaria and other diseases—are focused on health. The remaining five, however, which include eradicating extreme poverty and hunger, achieving universal primary education and promoting gender equality, address conditions which have an important bearing on improving health and combating the spread of infectious disease, just as improving health care will have an important impact on them.

#### *Poverty*

17. Professor David Harper, Director-General of Health Improvement and Protection at the UK Department of Health, told us that there was a recognition that, "in order to make improvements in the health area, whether nationally or internationally, very often the key players are outside the health sector" (Q 11). All those who gave evidence to us were agreed that there was a particularly close link between disease and poverty. The World Health Organisation (WHO) told us that its experience and that of its partners "has reinforced the lesson learnt on how poverty breeds HIV, TB and malaria and how they lead to further impoverishment of families, as well as how disease control efforts can dovetail with poverty alleviation and human rights initiatives"(p 205). Professor Janet Hemingway, of the Liverpool School of Tropical Medicine, was more forthright:

> "Health benefits go hand in hand with economic development: there is no question about that … Unless there is something that tackles poverty alongside health systems, you are fighting a losing battle in many ways. Somehow you need to think, not just of health in its own silo, but ask what it is, for the region or for the country, that is going to give it the economic benefit that goes hand in hand with the health improvements that you are trying to put in. If you can tie those together, you can get something that is sustainable" (Q 115).

18. The socio-economic drivers vary from one infectious disease to another. The Royal College of Physicians summed it up this way:

> "Tuberculosis is closely linked to poverty and social crowding. Influenza is affected by lifestyle, social crowding, sharing space with animal reservoirs and international travel. Malaria is predominantly related to

> lifestyle and changes in land use, and HIV is related to lifestyle and poverty" (p 127).

Dr Nils Billo, Executive Secretary of the International Union Against TB and Lung Diseases, explained the connection between tuberculosis and poverty in practical terms:

> "TB is a disease of the poor and marginalised. It is very difficult to get these people to the treatment centres. Their first worry is not the disease, it is getting food for their families, so the last thing they do when they are almost dead is they go to get treated … There needs to be a holistic approach" (Q 1072).

### *Population Growth*

19. One of the main causes of poverty is increasing population levels. Global population growth over the last 50 years has been dramatic, rising from 2.5 billion in 1950 to 6 billion at the end of the 20th century. The numbers are continuing to rise and, on present estimates, the world's population will reach over 9 billion by 2050. These overall figures, however, mask differing regional trends. The UN Population Division has estimated that between 2000 and 2050, while the population of Europe will decline by some 14%, that of other regions will increase—in some cases substantially. It is estimated that by 2050 the population of North America will have increased by 28%, that of Asia by 45% and that of Latin America and the Caribbean by 58%. Over the same period the population of Africa is forecast to grow by 130%[1].

20. Population growth has resulted, to a large extent, from overall improvements during the second half of the twentieth century in global health standards, which in turn have stemmed from improvements in public health generally and from advances in medical science which have made possible the control—and in some cases (for example, smallpox) eradication—of serious infectious diseases. Population growth is now, however, itself threatening global health by creating conditions, such as urbanisation and overcrowding, where infectious diseases can spread more easily, especially where basic public health services, such as clean water and sanitation, are not available. In some parts of the world rising populations are also leading to increasing encroachment on previously uninhabited areas of land, both for agriculture and habitation, and thereby bringing humans into closer contact with wild animals and exposing them to pathogens to which they have no immunity and which can jump the species barrier and infect them with previously unknown illnesses. It is no exaggeration to say that a continuance of present rates of population increase threatens the achievement of most, if not all, the MDGs.

### *Governance*

21. Another cause of poverty and disease is the absence, in many developing countries, of sound governance. There was concern among those who gave evidence to us about the extent to which the substantial resources which were being provided to developing countries, whether to reduce poverty or improve health services, were reaching their intended recipients. Professor Gill Walt, Professor of International Health Policy at the London

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1 United Nations Population Division, *The World at Six Billion*, (New York, UN, 1999), Pages 5–6

School of Hygiene and Tropical Medicine, believed that there was a need to invest some global health funding in the development of good governance in the countries who are recipients of external aid. "We need to feel confident", she told us, "that we have managerial and financial capacity in the countries" (Q 95). Professor Neil Ferguson, of Imperial College London, endorsed this view. "Quite often", he told us, "it is a failure of governments in the countries concerned. They are simply failed states and it is very difficult to operate in that backdrop" (Q 236). Dr Billo told us that "we make a big mistake by saying we do not have the technology, we do not have the science; we have the science and we have the technology but what is lacking is the management. In many countries basic management is deficient" (Q 1071).

22. Other witnesses drew our attention to another aspect of the governance problem—namely, a tendency in some developing countries to compartmentalised planning and management of resources. Professor Sir Michael Marmot, from University College London, who chairs the World Health Organisation's Commission on Social Determinants of Health, posed the question:

> "What is the role of the Minister of Health … if you argue that the key drivers of health lie outside the healthcare system? The levers which the Secretary of State can reach are all within the healthcare system, so those are the ones for which he tends to reach, but the main drivers are elsewhere" (Q 224)

Dr Imelda Bates, from the Royal College of Pathologists, agreed. Commenting on the absence of joined-up government in many developing countries, she told us:

> "On the ground, in the villages, people are doing these things all the time as an integrated thing. It is not really formalised. At ministry level, it is really difficult to get the ministry of education to talk to the ministry of finance to talk to the ministry of health" (Q 307)

23. The British Government recognises the governance problem. We were told that its provision of international development funding was tailored according to the perceived competence of the recipient country to manage it. Dr Stewart Tyson, from the Department for International Development (DFID), told us that, "where we have grave concerns about governance and accountability, we would use project approaches … As things developed, we would try to put in place a mixture of approaches" (Q 27).

### *Globalisation*

24. There was general agreement among our witnesses that the expansion of international travel and trade which has taken place during the last 30 or 40 years had tended to promote economic development and thereby provide a sounder basis for the building of stronger health care systems, which in turn provide a necessary foundation for the control of infectious diseases. On the other hand, as we have remarked above, both these phenomena have involved significantly greater movement of people and goods between countries, which makes the global spread of disease easier. The movement of animals, we were told, could be a particular hazard. According to the UN Food and Agriculture Organisation:

> "Globalisation and intensification of agricultural production systems and the international movement of animals, animal-derived products and

> associated commodities have the potential to rapidly spread a disease that originates in one location across the globe … Much of the spread of HPAI [highly pathogenic avian influenza] can be attributed to trade in poultry and poultry products, particularly the informal trade"( p 475).

25. Dr Richard Coker, of the London School of Hygiene and Tropical Medicine, agreed:

> "Over the last 20 years most [emerging diseases] have come from animals. They have come from animals either because of the movement of animals or because of the differences in how we look after our animals. With BSE, with SARS, with pandemic influenza, the driving force is the economy. That is what drives our changes in practice and the movement of goods. That is what threatens public health" (Q 127).

*Education*

26. There was general agreement among those who gave evidence to us that, among the various social determinants of infectious disease control, education and training had a key role to play. Professor Ann Johnson of University College London (UCL), told us:

> "If one takes the view, which I do, that primary health care and health systems are important for the long-term sustainability of these programmes and the developing world, then you have to have a strong education infrastructure … If they have education, so employment follows, so greater prosperity follows, child development improves, nations improve their overall wealth … You cannot have doctors and nurses without a sustainable infrastructure in the education sector" (Q 225)

27. The lessons to be drawn from all this are clear enough. Just as we cannot seriously address disease control outside the context of general health care standards (see below), so it is not sensible to consider how health can be improved in isolation from general social and economic well-being. Many of the countries which are the sources of serious infectious diseases and where these infections are difficult to control have suffered, and in some cases are still suffering, severe social and economic dislocation as a result of war and civil conflict, migration, political instability, and, more recently, climate change. Attempts to improve health services and to control infectious diseases will be effective only if determined action is taken in parallel to address these wider issues.

28. **We therefore recommend that at the High Level meeting called by the UN Secretary-General for September 2008 the Government not only re-affirm the MDGs but give a lead in ensuring that adequate resources are committed and targeted in particular on those areas where progress is lagging (including health).**

29. **We recommend also that the Government support and contribute to an increase in resources being allocated to family planning throughout the developing world and back other consensual programmes designed to slow world population growth.**

## Horizontal and Vertical

30. A recurrent theme in the evidence we have taken is the linkage between control of infectious diseases and the state of local health infrastructures. This was referred to by Dr Tyson, from DFID, as "a critical issue whose time has come, this focus on building health systems for the longer term or focusing on short-term deliverables against specific diseases" (Q 21). We were told, however, that a large proportion of donor funding for disease control in developing countries went into what are known as 'vertical' programmes—that is to say, programmes designed to target specific diseases—rather than into the 'horizontal' strengthening of general health systems. Vertical disease-control programmes have many strengths. They are able to focus resources on health issues of serious concern and to produce easily measurable results. There is, however, a downside. Dr Tyson described it this way in relation to PEPFAR—the US President's Emergency Plan for AIDS Relief:

> "In Zambia PEPFAR works through contracting NGOs, gives them short-term targets and very rounded targets. They have to get so many people on treatment by the end of Year Two, Year Three, Year Four. How do they do it? They put an advert in the paper in Lusaka and they hire 400 health workers. Where do they take them from? They move them from one part of the health system, where they are delivering children and providing general health services looking after kids, to work just on AIDS. This is a no-win/no-win situation; it is robbing Peter to pay Paul" (Q 21).

31. Others endorsed the importance of an adequate supply of health care workers. Dr Julian Lob-Levyt, Executive Secretary of the Global Alliance for Vaccines and Immunisation (GAVI), referred to shortages of doctors, nurses, paramedics and community health workers as "the biggest challenge for sub-Saharan Africa" (Q 812). Dr Stefano Lazarri, Senior Health Adviser at the Global Fund to fight AIDS, Tuberculosis and Malaria, told us that "there are very few qualified health workers in many poor countries and those who are good and qualified often migrate to better places, including the UK" (Q 620).

32. Others drew attention to problems of sustainability. While a concentrated focus of resources on tackling specific diseases can make a considerable difference to alleviating the burden of those diseases, whether such efforts are sustainable into the longer term depends on the degree to which they are embedded in local health services, which in turn depends on how the programmes in question are carried out. Dr Coker recounted an example from his own experience:

> "We were working in Russia, in the prisons and in the civil sector, on TB control, Multi-Resistant TB control and HIV control. What we did was to implement the WHO vertical DOTS[2] programme, which was probably unsustainable once funding had been removed because it was not integrated into the broader health system" (Q 96).

Dr Coker continued:

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[2] Directly-Observed Therapy Short-Course, a WHO-sponsored TB control programme directed at ensuring that anti-tuberculosis drugs are taken regularly in order to ensure that the disease does not recur in antibiotic-resistant form.

> "An NGO[3] was working there and the NGO had brought in its own doctors, its own laboratories, expensive systems and set up a completely parallel system to the Russian system which was costing huge amounts and was clearly going to be unsustainable" (Q 108).

33. Apart from these considerations, dealing with infectious diseases in watertight compartments can sometimes lead to unsound clinical practice. Dr Christopher Conlon, from the Royal College of Physicians, took the view, based on his experience of working with HIV-related illness in Zambia, that "in practice you cannot separate different diseases because they interact. HIV and TB is a good example … many people come into hospital with fever in the tropics and they call it malaria, but actually they have HIV or TB or something else" Q284).

34. The evidence we received on this issue was, however, far from being all in one direction. A number of our witnesses pointed to strengthening effects which vertical disease control programmes can have on general health care services. Dr Paul Gully, from WHO, argued that, "if one can reduce the burden of important disease—HIV, TB, malaria, meningitis, yellow fever—then, in fact, one is reducing the burden on a health system which then has greater ability to deal with other things" (Q 523). Diana Weil, of the Stop TB Partnership, told us that "in TB at the service level many people work on multiple diseases, so if you can invest in building that capacity or expanding the number of community health workers, then that will have a follow-on effect for other diseases" (Q 720). Ms Weil also pointed to dangers inherent in focusing external aid on health care infrastructure. "Most governments", she told us, "do not have very specific national health plans … What you could be funding is just the old practice of over-funding of hospitals, not enough financing of primary care, no clear deliverables" (Q 749).

35. All those who gave evidence to us were clear that it is not a question of vertical *or* horizontal disease control. Dr Tyson told us that "there is a lot of talk about whether we need vertical approaches or whether we need horizontal approaches. We need both. We need to be building the long-term system to deliver … against the future challenges as well as the current ones, and we need the benefits of short-term targeted investment" (Q 21). Alastair Burtt, Chief Executive of Target TB, endorsed this view. "We need a combination of the two", he told us. "We need good vertical health systems. We need the specialist inputs, but they have to be embedded within a good horizontal system" (Q 483). Dr David Heymann, Assistant Director-General at the WHO, believed that, "vertical programmes, if they are implemented properly, will end up in a strengthening of the health system" (Q 506). Dr Lazarri suggested that "what you want to avoid are the two extremes, programmes which are too vertical, that are not sustainable in the long term or very hard to sustain—and we have had plenty of experience of those—as well as programmes that are so broad but lacking focus and concrete results, that become difficult to sustain in the sense that you do not get the required investment" (Q 621).

36. Professor Marmot believed the tide might be turning:

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[3] Non-Government Organisation

> "The whole idea of developing a health system just foundered after 1978[4]. We have had the vertical programmes but there has been almost nothing else, and at long last WHO is re-discovering the importance of primary healthcare … The only game in town has been vertical programmes, and we need to re-discover how important health systems, primary healthcare, must be to make vertical programmes work better" (Q 221)

Professor Johnson told us that "people are now talking, to some extent, about diagonal programmes—that is, of course, trying to invest in vertical programmes but making sure that they interface with horizontal programmes" (Q 220). Dr Sylvia Meek, Technical Director of the Malaria Consortium, was cautiously optimistic. She told us:

> "The disease control initiatives are pulling quite a lot of resources in, which are being used to strengthen health systems, and what I think is very good at the moment is that, if the disease control programmes can start to articulate and quantify what the systems parts of doing their jobs are, then we could really make good progress" (Q 483).

37. It is clear to us that this is a complex issue and that what is really needed is a balance of investment between programmes which target specific and serious diseases and others which address the condition of underlying health care systems. Where that balance lies will vary from one country to another and from one disease to another. We have noted that a number of organisations which target specific diseases are now devoting a proportion of their resources to improving basic health care[5], and we welcome that. It is clear, however, that substantial external investment will be required in the health care infrastructures of many developing countries if a proper balance between the two axes is to be achieved. Where is that investment to come from? Dr Billo believed this was the responsibility of the governments of the developing countries concerned:

> "It is not possible that DFID, the Swiss Development Corporation or USAID can fund that. The Global Fund can do quite a lot, but basically it is the governments that need to put more money into infrastructure and health personnel to make sure that these programmes not only have an existence on paper with two or three people at the top in the capital but that all the centres, the cities, the peripheral health facilities, are properly staffed, have adequate medicines available and adequate infrastructure" (Q 1092)

Dr Billo added, however, that the World Bank should also invest in this area.

Dr Vallat agreed. He told us:

> "For 30 years the World Bank has considered priorities other than health and culture. The Bank funded more infrastructure in industry and not in health, but for the last five years the World Bank has been changing its priorities. We think they have to do more because the issues of sectoral investment have changed, but not sufficiently. We would like the World Bank to take that more seriously" (Q 1122).

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[4] The witness is referring to the date of a WHO Conference, at Alma Ata, where it was agreed that there should be a greater focus on the promotion of primary care. The agreement was not, however, subsequently implemented.

[5] See, for example, QQ 620 and 801

38. Dr Iain Gillespie, from the Organisation for Economic Cooperation and Development (OECD), felt that the World Bank could do more and would wish to. Others cited bureaucracy and governance as potential obstacles. Dr Lob-Levyt felt that the World Bank's systems for making loans were over-onerous and deterred developing countries from applying. "It can take years", he told us, "to negotiate a loan with the World Bank". Dr Lob-Levyt continued:

> "There is a feeling [in developing countries] that loans should only be taken for other sorts of infrastructure—roads, dams, construction—rather than for the social sectors. We need to change that dynamic … We need to create a World Bank that, perhaps in a more listening mode, is able to really carefully listen to what developing countries say. Rightly or wrongly, it has a reputation of top-down expertise and a certain amount of arrogance, which developing countries do not like. They do not naturally turn to the World Bank for advice because of perceptions of what it has stood for in the past, but that is changing … The World Bank is an amazing technical resource and … it is absolutely vital that the World Bank engages 100 per cent on the health sector, otherwise we will never get the Development Goals" (Q 842).

39. Another potential obstacle was in-country governance, to which we have referred above. Dr Bernard Vallat, Director-General of the *Office International des Epizooties* (OIE)[6], expressed the view that "we first need to be sure that governance is appropriate before putting money into infrastructure. That is why we [OIE] try to convince governments first to adopt the right governance and then to ask for loans or grants to carry out actions in the field" (Q 1123). Dr Billo echoed this theme: he told us that external aid was sometimes available but was not disbursed by donors because of concerns over efficient handling by the recipient countries. As he put it, "the channels of distributing the funding are not well defined and they [donors] are afraid they will get entangled with bureaucracy" (Q 1112).

40. We approached the World Bank for its view of the situation. The Bank referred us to a Brief on its website on Communicable Diseases, which emphasised that "specific efforts to improve country capacity to achieve communicable disease outcomes must be integrated with the country's overall health programme and be aligned with efforts in other sectors that influence health, including water and sanitation, education and agriculture". The Brief also stated that the Bank had "committed US$ 274 million to prevent, control and treat communicable diseases during fiscal year 2007".

41. The Bank also referred us to a report[7], published in 2007, setting out its strategic direction over the next 10 years in the fields of Health, Nutrition and Population (HNP). The report acknowledges that, "to realise its full potential and to respond to growing demand from the international community, the Bank needs to raise its health system strengthening contributions to client-country efforts for HNP results in areas where the Bank has comparative advantages". It explains that the Bank is "committed to supporting country efforts to strengthen health system infrastructure" and that it has "comparative advantages in large infrastructure investments, although client countries and country teams will need to decide, on a case-

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6 World Organisation for Animal Health

7 "Healthy Development: The World Bank Group Strategy for Health, Nutrition and Population Results"

by-case basis, bank investments in health service delivery infrastructure". The Bank's new strategic direction, says the report, is "to ensure synergy between health system strengthening and priority disease interventions, particularly in LICs [Low Income Countries]." It goes on to say:

> "Upon country demand, the Bank will continue to lend for priority diseases and programs. But when doing so, it must stay sharply focused on solving systemic constraints to improving HNP results on the ground and on ensuring synergy in priority disease treatment and system strengthening".

42. We believe, on the basis of the evidence we have heard, that it is crucial for effective disease control to achieve a proper balance of investment between vertical and horizontal programmes. We are heartened by reports that the climate of opinion appears to be changing and that there is a growing recognition that serious infections will not be brought under control simply by parachuting task forces into countries to address particular diseases. While such initiatives are certainly necessary, they need to be complemented by adequate investment in health care infrastructure. It is clear to us that the World Bank has a major role to play here; and, while we are pleased to hear that there is a recognition of this by the Bank itself and that investment is taking place, we believe there is a need for more and urgent action to address this problem.

43. **We therefore recommend that the Government in its own aid programmes should aim to achieve an effective balance between 'vertical' and 'horizontal' health programmes and should encourage other donors and the World Health Organisation to do likewise. In this context the Government may wish to explore whether an appropriate percentage of health aid provided through IGOs should be earmarked for the strengthening of health systems.**

44. **We further recommend that the Government should press the issue of investment in health care infrastructures within the World Bank with a view to bringing about an increase in such investment within the framework of sensibly streamlined application procedures and appropriate safeguards in relation to in-country governance.**

### Prevention and Treatment

45. 'Prevention is better than cure' is a maxim which has been applied to many spheres of life but one which is especially relevant to the field of health, and to global disease control in particular. Its precise applicability, however, varies from one disease to another. In the case of pandemic influenza, for example, prevention means, above all, maintaining an effective global alert and response system and a capability to identify emerging infections and deal with them at source. At the other end of the spectrum, preventing the spread of HIV is more a matter of changing lifestyles, particularly as regards sexual relations and the use of contaminated needles by intravenous drug users. Stopping the spread of malaria is different again: it requires a combination of treatment, through effective drugs, and practical measures, such as the spraying of households and the provision of insecticide-impregnated nets, which will kill the carrier mosquito. Tuberculosis spreads through insanitary and crowded living conditions and through poor nutrition, and its prevention is therefore linked more closely to remedying the socio-economic conditions referred to earlier.

46. WHO stated in written evidence that "the coverage of prevention interventions remains inadequate. Few countries have set targets and indicators for prevention programmes and systematically increased coverage of prevention interventions in the public and private sector" (p 204). Professor Johnson told us that "there has been huge investment in treatment for HIV in the last few years, but actually that has not gone hand in hand with investment in prevention. It is not just investment in prevention, it is actually the attempt to try and integrate prevention and treatment services" (Q 235).

Professor Johnson continued:

> "We are treating a lot of people in this country; we are treating a lot of people in Africa. If they remain infectious, they will go on transmitting the infection, so life-long management of HIV, particularly as people live longer, also has to involve prevention services in a clinical setting. It also requires that you have very strong and continuing prevention programmes at the national level, through widespread advertising and education programmes in schools and so on, which have to be sustained, just like vaccination programmes … A lot of agencies now would see that we have got a mismatch between investment in treatment and prevention … Once a treatment hoves in sight, the prevention agenda gets forgotten" (Q 235).

47. The message here is clear enough. With many infectious diseases, having an imbalance of investment between prevention and treatment is simply a matter of inefficiency: it is like trying to empty a bath while the taps are still running. In the case of HIV, however, effective treatment through the use of antiretroviral drugs has the potential actually to increase the prevalence of the disease unless it is accompanied by effective and sustained prevention measures. The question of what those measures might be is a difficult one. As the primary causes of HIV are linked to lifestyles, prevention means changing behaviour, which is difficult to implement and which may be undermined by a notion that, with treatments available, perhaps contracting the disease need not be regarded as the end of the world. Nick Partridge, Chief Executive of the Terrence Higgins Trust, described the situation this way:

> "We have seen, particularly at local primary care trust level, a significant drop in funding for prevention, continuing difficulties in getting sexual relationship education as part of the core curriculum and continued leadership around the need for ongoing HIV prevention campaigning work, both for those communities at greatest risk and more generally … Therapy has taken up a progressively larger amount of money. Also, good therapy makes people with HIV less visible in any community because you are healthier; you can remain in work … At a political level you introduce therapy. That makes people healthier but it certainly does not reduce, it increases, the prevalence of HIV overall … It creates an ongoing need for funding drug therapy which can squeeze out good prevention campaigns. What is vitally important is that both go hand it hand" (Q 464).

Mr Partridge added:

> "Treatment delivery is the easy part. Doling out pills is not that complex. Changing behaviour long term is immensely complex and

> weighted with a load of moral, political and cultural stuff that is very tough to do. Prevention has become consistently more complex over the years, whereas treatment has become simpler, clearer and cheaper" (Q 465)

Dr Alvaro Bermejo, Executive Director of the International HIV/AIDS Alliance, observed that "the prevention constituencies are not as powerful as the treatment constituencies, and we need to understand that" (Q 473).

48. Dr Heymann, from WHO, agreed that the balance between prevention and treatment was acceptable in some areas but not in others, and he cited HIV as one of the latter. He added, however, that the shift from prevention to treatment was of fairly recent date. "If you look at what bilateral donors were giving, including the United kingdom, back in 1990, they would not provide any resources at all for treatment or patient management, it was purely for prevention, purely for vaccines—vaccines were the investments we wanted to make" (Q 525). Though there was now a general recognition that the pendulum had swung too far in the opposite direction, it had been hard to convince some bilateral funders of the need to support certain preventive measures. Dr Heymann told us:

> "There is a major financial partner in HIV, the United States Government, which has a bilateral series of programmes on HIV treatment which has not permitted all of the prevention interventions being used. WHO had advocated with the [US] Government, as have many, many others, and in the new allotment of funding prevention is now fully installed … The United Kingdom and Canada were very helpful with the US Government in helping them understand the importance of prevention in HIV" (Q 526)

49. Mr Elhadj Amadou Sy, Director of Partnerships and External Relations at UNAIDS, believed it was mistaken to see prevention and treatment as competitors. He told us that "the best illustration to show that there is no dichotomy between treatment and prevention is the prevention of mother-to-child transmission, where you treat and, by treating, the result is that you prevent transmission of the infection from a mother to a child". Continuing, Mr Sy said:

> "We have learned that, when we strengthen care activities, prevention works better … People will not develop health-seeking behaviour which is pretty much related to the kind of prevention we want to see if, on the other hand, the incentives are not in place—that you go for testing and, after that, there is an opportunity to get treatment. If we do not have treatment, we will not have the involvement of people living with HIV in prevention. Evidence has also shown that the best agents of change and the best people who could deliver the messages that can trigger the behaviour change, who can talk to young people, are those who are experiencing the virus in their own bodies and living that experience".

Mr Sy added, however, that "for every person that we are putting on treatment, we are having three or four new infections in some settings" (Q 383).

50. The situation with HIV is in contrast to the balance of investment between prevention and treatment of diseases, like pandemic influenza and SARS, where global surveillance is the primary tool of prevention. In the view of the London School of Hygiene and Tropical Medicine, global disease

surveillance has improved markedly in the last decade. Expanding on this in oral evidence, Dr Coker told us that "the SARS crisis forced a re-think on global surveillance and was really, in a sense, a dry run for pandemic flu. What became clear through that was that surveillance around the world needed to be better collated, faster and different sources used, so not only full national surveillance programmes but also more informal systems of surveillance needed to be drawn upon" (Q 56). Professor Ferguson endorsed this view:

> "A lot has been done on outbreak, detection and response, particularly for acute respiratory diseases, even in some very challenging settings, such as rural Indonesia or Cambodia, where we are picking up single cases, and certainly clusters of cases, in a relatively short timescale given the infrastructure on the ground" (236)

51. Two recent important steps in this direction have been the formation, under the auspices of WHO, of the Global Outbreak Alert and Response Network (GOARN) and intergovernmental agreement of new International Health Regulations (IHRs), both of which we discuss in the next chapter. However, while these important measures indicate a recognition at an intergovernmental level that disease surveillance must be accorded a high priority and while many nations, including the UK, have good quality national systems both for national disease control and for collaboration with GOARN, the fact remains that there are many other countries, especially in the developing world, which do not. WHO stated in written evidence to us that "there is gross under-investment in this system [GOARN] and it depends on strong, capable and transparent national systems, which again are subject to under-investment" (p 203). The Government echoed this view in its own written evidence:

> "In many developing countries surveillance of infectious disease is not routine, nor can there be complete reliance upon the diagnoses given nor the cause of death. In developing countries epidemiological studies are not routinely conducted thoroughly in connection with outbreak to identify the source. Improvements in capacity within countries is still the pre-requisite for good diagnostics and surveillance and consistency of data" (p 6).

52. All of which brings us back to the need to invest in basic health infrastructure in order to provide a firm foundation on which more specific disease control initiatives can be built. Professor Johnson regarded international investment in national surveillance as "an issue of global stewardship". She suggested to us that "investment in these areas in developing countries is extraordinarily important for identifying new and emerging infections and being able to deal with the public health consequences. It is also a form of enlightened self-interest … because infectious diseases move very rapidly round the world because of the social, economic and other circumstances in which we live" (Q 254). There are signs that, after the SARS outbreak and with the threat an influenza pandemic growing, this view is gaining ground. Dr Scott Dowell, Director of the Global Disease Detection Program at the US Centers for Disease Control (CDC), Atlanta, told us:

> "The perception that it is appropriate to invest US taxpayers dollars in global activities has grown, and the lessons from the SARS outbreak of 2003 and other recent outbreaks have not been lost—the idea that one of the ways the US CDC protects the health of American citizens is by

strengthening the ability of other countries to protect the health of their citizens. I have seen a gradual shift, independent of particular Administrations, over the last 10 or 15 years towards increased funding of international health and global health activities" (Q 396).

53. Indeed, Dr Dowell observed that this was one of the requirements of the new IHRs—that wealthier WHO Member States should work with less wealthy ones to improve their disease surveillance capacities. The CDC itself has established six Global Disease Detection (GDD) Centers in various parts of the world, which act as regional centres for monitoring the emergence of infectious diseases as well as building local surveillance capacity. All the GDD Centers, Dr Dowell told us, are collaborations between the CDC and the Host Nations, with the involvement of other partners including WHO.

54. Another area of infectious disease surveillance, which we understand is currently being pursued by the University of California, is that of viral forecasting—namely, research into patterns of emerging infections with a view to developing risk-based forecasts of what the next one might be and where it might appear. Dr Dowell, from the US Centers for Disease Control, felt this was "an interesting area of investigation", while adding that "it is early in its infancy and there is a lot of work to be done". It seems to us, however, that with further work viral forecasting has the potential to make infectious disease surveillance a proactive rather than a reactive function.

55. The situation we face here is in many respects analogous that that which we have discussed in the previous section. It is not a question of prevention *or* treatment but rather one of finding the right balance between the two activities. If treatment programmes are seen as being essentially fire-fighting activities designed to bring epidemics under control, it is natural that they should focus, in their early stages at least, on treating those who have already contracted the diseases in question. This must not, however, blind us to the longer-term need to take action in parallel to deal with the causes of the diseases: only in this way can we expect to see their incidence diminish over time. There is no magic formula here: the balance to be struck will vary from one disease to another. However, we do believe that in one area at least there is a strong case to be made for significant additional international investment in prevention activity—namely, in the alert and response systems needed to give early warning of and to allow prompt countermeasures against newly-emerging infections. Although investment in this area is likely to be costly, we have to consider the social and economic impact across the world in the event, which is said to be far from unlikely, that a new virulent pathogen, such as SARS or H5N1 influenza, were not promptly detected at source.

56. **We believe that it is an integral part of Britain's own defences against the spread of such pandemic outbreaks of disease that warning and preventive systems in developing countries be strengthened and that, where necessary, the resources and skills to effect this are provided. We therefore recommend that the Government should consider urgently how greater priority can be accorded, both in its bilateral funding of developing countries and in the resources which are provided through organisations of which the UK is a Member, to bringing infectious disease surveillance and response systems up to an effective level.**

## A Moving Target

57. One of the problems of disease control is that the diseases themselves do not remain static: they evolve so as to render themselves resistant to antibiotics. In the UK we have become familiar with this phenomenon in recent years in the form of methicillin-resistant staphillococcus aureus (MRSA). But it is also a growing problem in other areas. Two strains of drug-resistant tuberculosis—multi-drug-resistant tuberculosis (MDR-TB) and Extensively-Drug-Resistant tuberculosis (XDR-TB)—have emerged. Indeed, during the course of our inquiry the UK saw its first recorded case of XDR-TB. UNITAID described the situation to us as follows:

> "The number of multi-drug-resistant tuberculosis [MDR-TB] cases is increasing due to resistance to first-line treatments. It is estimated that at least 450,000 individuals worldwide have contracted a multi-drug-resistant form of tuberculosis. A very small percentage receives appropriate treatment, the cost of which is very high (approximately $4,000 [per course of treatment] at the high end of the range)" (p 264).

58. Tuberculosis is by no means unique as a disease which is developing resistance to antibiotics. WHO stated in evidence:

> "Resistance has developed to almost all of the previous antimalarial medicines that were used, sometimes taking just a few years to spread worldwide. Therefore it is critical that the efficacy of artemisins, the only effective medicines against drug-resistant parasites, be protected (p 207)".

In the case of HIV/AIDS too there is evidence of resistance to antiretroviral therapy, though in the view of Professor Mike Catchpole of the UK Health Protection Agency (HPA) its progress had been slowed by the use of multiple drug therapies (Q 141). A particular problem in the case of HIV is the increased exposure which the virus brings to infection from other diseases, especially tuberculosis. We address in the next chapter the question of whether there is a need for greater integration of efforts to treat HIV and TB. Suffice it to say here that TB is the largest single killer of people suffering from HIV and, in the view of Dr Bermejo of the International HIV/AIDS Alliance, prevention of TB is best addressed through prevention of HIV infection (QQ 436 and 438).

59. Antimicrobial resistance arises out of inadequate diagnosis and treatment. A number of those who gave evidence to us emphasised the crucial role which good diagnostics play in combating the spread of infectious diseases. Failure to diagnose the presence of an infectious disease obviously hampers its treatment and facilitates it spread. Equally, however, inaccurate diagnoses can lead to inappropriate treatment and contribute to the growth of antimicrobial resistance. Dr Helen Williams, from the Royal College of Pathologists, said;

> "If you look at drug-resistant TB—either multi-drug-resistant or extensively-drug-resistant TB—the whole future of that programme depends on having a developed capacity for not only diagnosing TB but diagnosing drug-resistant TB. The whole issue of diagnostics extends beyond the individual patient and the appropriate use of drugs in that patient. It is also using drugs in people who do not need them, so you have exposure and development of resistance" (Q 317).

Dr Williams added:

> "Unless you reasonably accurately diagnose what someone has, then you risk using precious drugs and precious resources wrongly and treating people inappropriately. You also risk—which is clearly a major issue with HIV, TB and malaria—inducing resistance in the organisms" (Q 328).

60. It is not, however, just a matter of poor diagnosis. Professor Borriello, Director of the HPA's Centre for Infections, drew our attention to the problem of poor prescribing of drugs:

> "There may be a need for more interaction on accepting common approaches to antimicrobial prescribing. One of the things that is very different throughout the world is antimicrobial prescribing as well as access to antimicrobials. A number of countries have over-the-counter, unrestricted sales and a number of countries do not. The hard evidence as to the extent to which that difference in access contributes to the resistance seen in those countries is not readily available" (Q 142).

Diana Weil, from Stop TB, agreed. She believed that, if the supply of uncontrolled and poor quality drugs is not halted, "we are going to be in deep trouble five or ten years down the road" (Q 750).

61. The incidence and spread of drug-resistant disease strains has, however, been poorly studied. Dr Heymann told us that "we have drugs going out in massive quantities from the Global Fund and there are not systems in countries that are monitoring resistance to these drugs. These are public goods, they must be preserved and we need to strengthen surveillance activity" (Q 572). His colleague, Dr Gully, commented that "very few countries have good surveillance of antimicrobial resistance, even in a lot of developed countries. Even if you had good surveillance, you would also have to ensure a good response ensuring close collaboration of the healthcare sector, physicians and nurses" (Q 574).

62. Experts have been calling for drug resistance to be put on the global health agenda. Among our witnesses Dr Lazarri, from the Global Fund, expressed surprise that antimicrobial resistance was not yet seen as a global priority. "There is a gap there", he told us (Q 646). He believed there was a need for "a global movement that is approved by the World Health Assembly and becomes a global priority" (Q 647), with regional and global networks to carry out testing.

63. To a large extent, we have here yet another manifestation of the need for 'vertical' disease control action (in this case the supply of antimicrobial drugs to infected people) to be complemented by a 'horizontal' capability to ensure that there is intelligent prescribing and that prescribed drugs are used as intended. Indeed, this is a prime objective of WHO's DOTS[8] programme for the treatment of tuberculosis. DOTS aims to ensure that TB sufferers are supplied with the correct medicines and that they take them as prescribed over the full period required, which can be many months. It is, however, a programme which is heavily dependent on the availability of health care workers, often in remote areas, and on the cooperation of patients. This is something which, in Dr Heymann's view, only WHO and the countries concerned can do. Yet, as we have seen, it is here—in the building up of

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[8] Directly Observed Therapy Short Course

competent and adequately-staffed healthcare infrastructure—where there are serious deficiencies and where investment is needed if campaigns to combat specific killer diseases are to take root.

64. There are also cost implications. The cost of second- or third-line medicines to combat drug-resistant forms of diseases is far higher than that of first-line treatments. DFID itself recognises this dimension of the problem in its published AIDS Strategy:

> "The prices of antiretroviral drugs have been falling steadily, but second-line drugs are still very expensive. Drug resistance, which forces people to move from first-line to second-line therapies, escalates costs"[9].

65. **We therefore recommend that, in achieving an appropriate balance of investment, both of UK bilateral aid and of funding provided through IGOs, and in using its influence within the World Bank to encourage increased investment in health care infrastructure, the Government should regard the building up of in-country surveillance and diagnostic capabilities for antimicrobial resistance as a high priority component.**

## Access to Medicines

66. Access to medicines is influenced by a range of factors, including the price of medicines, the existence of sufficient and sustainable financing arrangements, the condition of local health services and supply systems, the proper selection and use of medicines and the level of research and development undertaken for new drugs. During our inquiry we attempted to establish what impact one of these factors—Intellectual Property Rights (IPR) or Patents—had on access to medicines by those who need them.

67. In recent years there have been breakthroughs in the development of drugs to treat many of the world's most serious infectious diseases or to deal with resistant strains which have emerged. Developing new drugs, however, is one thing: ensuring that they can be readily accessed by the sick people who need them is another. Drug development is an expensive and risky enterprise: firms who undertake it employ highly qualified staff, sometimes for many years, and with no guarantee that the investment will be recovered. A number of witnesses emphasised the role that IPR played in providing the incentives necessary to encourage companies to make major investments in the development of new drugs.

68. There are, however, some real problems with the patent system as applied to global health. There is the obvious difficulty that, by conferring temporary exclusivity on a pharmaceutical product, patents can result in the price of new medicines being beyond the reach of people in the world's poorer countries. There is also the reciprocal problem that the unaffordability of many new drugs in developing countries, which is often where the greatest need for them lies, means that there is less incentive for pharmaceutical firms to invest in the research and development needed to bring about necessary innovation.

69. A key issue here is what is known as TRIPS—the World Trade Organisation (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights.

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9 "Achieving Universal Access—The UK's strategy for halting and reversing the spread of HIV in the developing world"

TRIPS, which came into force in 1995, requires WTO Member States to adopt minimum standards of intellectual property protection that are often greater than the protection previously granted. The patent system has been criticised by global health campaigners and some independent experts for a number of reasons. It has been argued that, by conferring temporary exclusivity on new medical products, patents shield these products from the effects of competition, thereby putting the price of new medicines and vaccines beyond the reach of poorer people, many of whom may need them most. Thus, the International HIV/AIDS Alliance wrote that "new and future ART [anti-retroviral treatment] will not be so cheap. New intellectual property legislation in countries like India is pricing treatment beyond the reach of poor countries and poor people" (p 181).

70. Others argue that the TRIPS Agreement contains exceptions, exclusions and qualifications designed to mitigate the potentially adverse effects of patents on access to medicines in poor countries. WTO noted that "the TRIPS Agreement contains considerable flexibility in regard to patent rights, for example transition periods, compulsory licensing, government use, other limited exceptions and parallel imports" (p 572) and drew our attention to a Ministerial Declaration (the Doha Declaration) on the TRIPS Agreement and Public Health which was adopted in 2001.

71. The Doha Declaration, the Government told us, states that "the TRIPS Agreement 'does not and should not prevent Members from taking measures to protect public health … and, in particular, to promote access to medicines for all'. The Declaration highlighted the flexibilities that exist in TRIPS to facilitate access to medicines" (p 13). The Government added that "many pharmaceutical companies have instituted differential pricing policies for selected products and countries, under which they charge lower prices in least developed and low-income countries, in particular for drugs targeted at HIV/AIDS, TB and malaria".

72. A number of those who gave evidence to us were inclined to be sceptical as to the effectiveness of the TRIPS flexibilities. UNITAID stated in written evidence:

> "Despite the Doha Declaration in 2001 and the possibility for developing countries to make use of the TRIPS Agreement flexibilities and especially to be able to issue compulsory licences, its use has been very limited so far. Bilateral or regional free trade agreements are superseding global agreements in many countries" (p 266).

Dr Bermejo, of the International HIV/AIDS Alliance, told us:

> "The flexibilities introduced to the TRIPS Agreement on paper have been very good, they are the type of thing we need; but it has been the implementation of them that has been difficult … A number of countries, when signing up to a Free Trade Agreement, either have been asked to introduce into their domestic legislation some legislation that would prevent the exercising of those flexibilities or that has been written into the Agreement itself" (Q 425).

UNAIDS argued that,

> "based on an analysis conducted on some recently concluded bilateral trading agreements, countries appear to be committing themselves to obligations that extend significantly beyond those contained in the

> TRIPS Agreement and which may prove contrary to the objectives contained in the Doha Declaration" (p 153).

And Mr Philippe Petit, from the World Intellectual Property Organisation (WIPO), gave it as his view that

> "there is little doubt that bilateral or regional trade agreements may be dangerous for the flexibilities and exceptions in the TRIPS Agreement, since the strongest partner may impose its conditions more easily than would be the case in a multilateral framework and in the framework of the WTO" (Q 873).

73. Dr Elhadj Amadou Sy, Director of Partnerships and External Relations at UNAIDS, saw a need to balance incentives to developers against affordable prices for consumers. In his view the solution was "to support countries in negotiating differential pricing, because we have seen that in some countries some pharmaceutical companies are able to reduce the price of the drugs by 80%".

74. How can this conflict between providing financial incentives to pharmaceutical companies to develop new medicines and ensuring that they are affordable by sick people in some of the world's poorest counties be resolved? Dr Silberschmidt, from the Swiss Federal Office of Public Health, suggested to us that one of the problems in ensuring exploitation of trade agreements relating to the supply of pharmaceuticals was that there are too few officials in developing countries who have the necessary expertise to negotiate and make use of the required flexibilities. In his view there was a need to train 'health diplomats'. He told us:

> "There are very, very few good negotiators both in the bilateral and multilateral fields on the recipient's side … If there is a free trade agreement negotiation and Nigeria, Kenya or whoever has a competent health diplomat from the Ministry of Health involved in the negotiation, the outcome will be significantly better"(QQ 614,615).

Dr Sy, from UNAIDS, echoed this view, referring to the need to "build up capacity and support developing countries in their negotiations with partners" (Q 384).

75. **We therefore recommend that the Government should support, within WHO and other relevant IGOs, the development of health diplomacy training to enable developing countries to make the fullest use of the flexibilities in the WTO's Doha Declaration on TRIPS.**

76. **We recommend also that the Government should consider whether the UK might provide a lead either by establishing relevant training courses in this country, perhaps under the auspices of DFID, for suitable officials from developing countries or by sponsoring officials from developing countries to attend existing courses, such as the Summer Programme on Global Health Diplomacy at the Graduate Institute of International Studies in Geneva or by seconding suitably-trained UK officials to support selected developing countries in their negotiation of individual agreements.**

77. **We further recommend that the Government should throw its weight against the inclusion, in bilateral or regional trading agreements, of proposals inhibiting the use by developing countries of the Doha flexibilities.**

78. It is clear to us that getting medicines to those who need them at affordable prices cannot be left to the operation of the TRIPS Agreement, even with the flexibilities provided by the Doha Declaration, and that other, complementary mechanisms are needed. Our attention was drawn to a number of such mechanisms which are being pioneered in order to improve access to medicines. 'Push' mechanisms provide additional resources to reduce the risks and costs of pharmaceutical research and development: they include basic research funding and product development public-private partnerships (PDPs). 'Pull' mechanisms are designed to create a more visible market for the downstream fruits of research and development and thereby to stimulate investment by pharmaceutical firms. They include the International Finance Facility for Immunisation (IFFIm) and Advance Market Commitments (AMCs).

**BOX 1**

**The GAVI Alliance**

The GAVI Alliance (formerly the Global Alliance for Vaccines and Immunisation) is a public-private partnership (PPP), established in January 2000. Its partners include National Governments, UNICEF, WHO, the World Bank, the Gates Foundation, the vaccine industry, research and technical health institutions, and civil society organisations

GAVI's mission is to save lives and improve health by increasing access to immunisation in poor countries through the raising and disbursement of funds for the purpose. By the end of 2007, GAVI had received funds and long-term pledges from donors exceeding $US 7.5 billion. WHO estimates that in the first seven years of its existence GAVI has averted 2.9 million future deaths.

As part of its drive to find new ways of raising and disbursing funds for immunisation, GAVI has helped to develop the International Finance Facility for Immunisation (IFFIm) and Advance Market Commitments (AMCs). With the former, donor countries make 10–20 year, legally-binding aid commitments, against which IFFIm borrows on capital markets. AMCs are mechanisms to attract private sector investment into new vaccine products for poor countries by guaranteeing purchase volumes at agreed prices over a period of time.

79. Dr Lob-Levyt, from GAVI, told us more about IFFIm and AMCs:

> "The International Financing Facility, in which the UK Government was a major driver, allows us to have ten years of legally binding finances. We can go to countries and say 'We can enter into ten-year programmes to support you, so that you can build your budgets' and industry responds well when they see a market where there was not a market before … So we see the competition build up as more companies come in … The next step beyond that is the Advance Market Commitment, which is basically saying, at its simplest, 'If you produce a vaccine in this disease area, with this effectiveness, and at a price at the end of the day that is affordable' (and we will set the price) 'we will buy it'" (Q 815).

80. We consider that 'pull' mechanisms, such as IFFIm and AMCs, have much to offer. While leaving commercial risk with the product developer, which is

where it should lie, they offer an attractive and stable market and have the potential to stimulate competition. Organisations such as UNITAID and the Global Fund to fight AIDS, Tuberculosis and Malaria are in a strong position, with their long-term funding streams, to provide such incentives. It is important, however, that there should be rigorous analysis of options so that investments are not wasted. OECD suggested to us in evidence that it was well-placed to provide the necessary analytical capability (Q 1038).

81. **We therefore recommend that the Government should support, both bilaterally and multilaterally, the development of sound long-term funding mechanisms which are able to offer incentives to pharmaceutical companies to develop new medicines at prices which can be afforded by poorer countries.**

## Natural or Intentional?—The Threat from Bioterrorism

82. While the predominant threat from infectious diseases arises from those occurring naturally, in the world in which we live today the possibility has to be recognised that infections could be released deliberately for political purposes as an instrument of international terrorism. We therefore sought the views of many of those who gave evidence to us as to the effectiveness of intergovernmental arrangements for dealing with this problem.

83. There was agreement that the potential for deliberate release was there. Indeed, Professor Borriello of the HPA suggested that successes in combating some serious infectious diseases, such as smallpox, could actually increase the impact of such incidents on the population at large:

> "As the world eradicates certain pathogens, the population becomes naïve; there are no vaccinations, therefore the release of such an organism, if it is retained, could have quite devastating effects" (Q 178)

Professor Borriello drew attention also to the danger that an animal pathogen might be deliberately engineered to infect humans, while Professor Ferguson felt that animal pathogens might be used not so much to infect humans as to cause economic dislocation.

84. On the other hand, there was general consensus among those who gave evidence to us that the improved arrangements which were being established for detecting and controlling the accidental spread of infectious diseases were, to all intents and purposes, identical with those which were needed for detection and response to incidents involving deliberate release. Indeed, Professor Johnson saw concerns over the latter as an important factor in the building of improved capabilities for the former. She told us:

> "Concerns about bioterrorism probably have strengthened our health protection function in this country … It has been one of the drivers for improving the health protection structure. The Health Protection Agency has been significantly strengthened over the last decade and taken on a broader range of activities" (Q 255).

Professor Ferguson took the view that "it is much more cost-effective to invest in dual-capability response measures which can be used against acute natural occurrences as well as deliberately-introduced agencies than the very specific measures against particular pathogens, which may or may not be used, are very expensive to develop, and you do not get very good value for money for the size of the investment when you actually do it" (Q 256).

85. Dr Scott Dowell, from the US Centers for Disease Control in Atlanta, agreed on the need for dual-use strategies. "If we focus on strengthening capacity to deal with naturally occurring events", he told us, "then we have got most of the way to dealing with bioterrorist events as well" (Q 418). Dr Maureen Baker of the Royal College of General Practitioners believed that "the work that has gone on in the UK on pandemic planning is a very good model for dealing with a major outbreak of communicable disease, however it arises" (Q 361). Dr Williams, from the Royal College of Pathologists, told us:

> "The detection of any disease, whether it is bioterrorism or a naturally occurring one, depends entirely on having a good infrastructure, which is about having alert clinicians when patients present, it is about having good diagnostics available, people thinking outside of the normal things when something is abnormal and having good surveillance systems and good communication systems in place" (Q 361).

86. Dr Silberschmidt told us that the new International Health Regulations implicitly covered terrorist-inspired events as well as naturally occurring outbreaks of disease (Q 602). Professor David Fidler, from Indiana University School of Law, agreed that the preparations for and response to naturally occurring and deliberately released pathogens were similar. "Anything you do to prepare for a biological weapons attack", he told us, "will stand you in good stead if it is an outbreak of naturally occurring infectious diseases, and vice versa" (Q 1016). He also concurred with Professor Borriello's view that the eradication of certain diseases, such as smallpox, and the subsequent cessation of vaccination could leave populations more at risk in the event that a terrorist organisation were to gain possession of such pathogens and succeed in disseminating them.

87. **We have concluded that, so far as controlling the spread of infectious diseases is concerned, the deliberate release of toxic organisms should not be considered as in a separate category from the normal arrangements for controlling natural outbreaks. We recommend that the Government should support, both nationally and intergovernmentally, generic surveillance and response systems which are capable of addressing both deliberate and naturally-occurring outbreaks of infectious diseases.**

## CHAPTER 3: INTERNATIONAL HEALTH: THE INSTITUTIONAL LABYRINTH

88. In this chapter we review the interaction of the various actors on the international health stage, particularly those concerned with infectious disease control. We look in some detail at the role of the World Health Organisation (WHO) and then turn to address a number of the key issues which have arisen during our inquiry, including the synergy with which the various bodies are working under the existing system and the case and scope for some rationalisation of global health governance.

### The Field of Players

89. The Government wrote in evidence to us that "intergovernmental organisations, including the UN agencies, development banks, global funds and health partnerships, have a central role in health and specifically the control and spread of infectious diseases"(p 2). IGOs, however, are far from being the only players on the global health stage. Research Councils UK drew attention to NGOs, many of them (such as Stop TB) operating through partnerships, some of them including IGO representatives(p 521); and Professor David Fidler, from Indiana University School of Law, believed that recognition of the growing non-State dimension was crucial to understanding the changing nature of global health management. "The [global health] governance task", he wrote, "now extends beyond getting IGOs to function more effectively because non-State actors play significant and increasingly influential roles" (p 379).

90. A list of the main organisations involved in controlling the global spread of infectious diseases is at Appendix 4. Figure 1 illustrates the institutional labyrinth. There may be said to be five main groups:

- **Intergovernmental Organisations** with either wholly or partially health-related mandates, including the World Health Organisation, the World Bank, UNAIDS and UNICEF;
- **National Governmental Organisations** operating internationally in the field of infectious disease control, including the UK Department for International Development, the US Centers for Disease Control and the US Presidential Emergency Programme for AIDS Relief (PEPFAR);
- **Non-Governmental Organisations**, such as *Médecins Sans Frontières*, the Malaria Consortium and the International HIV/AIDS Alliance;
- **Public-Private Partnerships**, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, UNITAID and the Global Alliance for Vaccines and Immunisation (GAVI);
- **Private Foundations**, much the largest of which is the Bill and Melinda Gates Foundation.