Free trade for better health

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IPN aims to empower individuals and promote respect for people and property in order to eliminate poverty, improve human health and protect the environment. IPN promotes public awareness of the importance of this vision for all people.

IPN seeks to achieve its vision by promoting the role of market institutions in certain key international policy debates: sustainable development, health, and globalisation and trade. IPN works with academics, think tanks, journalists and policymakers on every continent.

Executive summary

Free trade is a powerful mechanism for improving human health, for two broad reasons. First and most important, freeing up trade between individuals and countries is a proven way of increasing prosperity and wealth.

Wealth is important to health because it allows people to buy improvements in living conditions. Prosperity brings with it decent sanitation, clean water and clean, efficient domestic fuels. A lack of these necessities is directly responsible for a large proportion of mortality and morbidity in the world's poorest countries. People in wealthier countries, meanwhile, have the resources to ensure that they are well-nourished and live in hygienic conditions. This is why life expectancies have been on the rise in these regions since modern economic growth began at the time of the Industrial Revolution.

The second reason why trade improves health relates to so-called 'technology transfer'. Before the late 19th Century, cross-border trade was restricted to a handful of nations. Today, all countries trade internationally, with lower-income countries recently seeing their share of global trade increasing significantly.

As a result of this growing international exchange of goods and services, the health-related knowledge and technologies which originated in rich countries have been disseminated to the rest of the world. In the years following the Second World War, the global spread of drugs such as penicillin – a medicine discovered and developed in Britain – had a massive impact on mortality in many poor countries. Similarly, the spread of other technologies developed in rich countries, such as DDT, have significantly reduced the incidence of malaria worldwide. Some economists believe that the spread of technology, facilitated by free trade, is the most important reason why life expectancies have been steadily rising in most parts of the world for the last 50 years.

Nevertheless, some have claimed that trade liberalisation and especially agreements such as those administered by the World Trade Organisation (WTO) are harmful to the poor. Such claims are not borne out by the evidence.

One of the WTO agreements, the General Agreement on Trade in Services (GATS) has been accused of undermining sovereignty and requiring the privatisation of health services, but the reality is that the GATS allows signatories a great deal of flexibility. In addition, like all trade agreements, the GATS is voluntary and relies on mutual recognition, not coercion. Moreover, the GATS may act as a significant spur to technology and knowledge transfer, because it encourages the adoption of beneficial things such as telemedicine, medical tourism and proper standards for health insurance. It may also help overcome the so-called 'brain drain' of medical personnel from South to North, by encouraging better career opportunities at home.

Another WTO agreement, the Trade Related aspects of Intellectual Property Rights (TRIPS) agreement, has been accused of – among other things – holding up knowledge transfer from "North" to "South". In fact, the opposite is true. India has recently made its domestic legislation compliant with TRIPS, and the result has been a massive influx of foreign Research and Development expertise and capital. The early indications are that this TRIPS-compliant law will provide an environment in which India will develop a range of new drugs for the diseases which affect its population.

Meanwhile, the various Free Trade Agreements (FTAs) signed between the United States and bilateral partners likewise stand accused of delaying technology transfer

by strengthening intellectual property protection. The truth is that most of these FTAs retain the flexibilities of TRIPS, and binding ‘side letters’ exist for the others. But by protecting intellectual property, these FTAs allow local manufacturers to develop their own products with a far lower threat of profit-eroding piracy. Likewise, multinational companies will be reassured that their property will be safe in a signatory country, resulting in greater foreign investment and technology transfer.

Free trade has a positive impact on health, so it is reprehensible that governments continue to impose restrictions on trade. It is particularly horrific that drugs and medical devices continue to be subject to a range of import levies in the majority of lower-income countries, with the result that many sick people are priced out of treatment. Removing these unconscionable restrictions on trade must be a priority for trade negotiators concerned about the health of the poorest.

In addition, there is a strong moral case for prioritising the removal of tariffs on technologies that enable the supply of clean water and clean energy. Dirty water and fuels are two of the biggest causes of disease in lower-income countries – resulting in over 4 million deaths per year, mostly of women and children. The removal of these levies can and should be done as soon as possible. If unilateral removal is not politically acceptable then they should be removed within the context of negotiations on access to environmental goods and services in the current multilateral Doha round.

Finally, there is an absolute moral imperative to remove restrictions on trade in food, because malnutrition remains a major problem in many parts of the world. This applies especially to the many nations in Africa which maintain harmful tariffs on the agricultural products of neighbouring states.

Free trade for better health

Wealth, trade and health

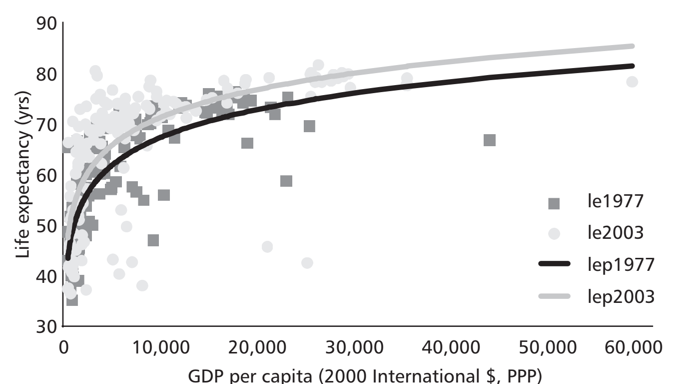
The history of humanity shows that the most certain and sustainable way of improving human health is to increase individual prosperity and wealth. A seminal 1996 study by economists Lant Pritchett and Lawrence Summers showed the dramatic effect which increases in incomes can have on health. They found a strong causative effect of income on infant mortality, and demonstrated that if the developing world's growth rate had been 1.5 percentage points higher in the 1980s, half a million infant deaths would have been averted.

In fact, the health of the world's population has been improving since modern economic growth began with the Industrial Revolution. Infant mortality and life expectancy rates have improved dramatically around the world, and food is more abundant and cheap than ever before. These indicators of human well-being improved noticeably in rich countries from the mid to late 19th century, as nations cleaned up their water supplies and instituted basic public health measures, such as sanitation, pasteurization, and vaccination. Then, in the first half of the twentieth century, antibiotics, pesticides such as DDT, and an array of vaccines were added to the arsenal of weapons against disease. Once the traditional infectious and parasitic diseases were essentially conquered, richer countries turned their ingenuity and wealth to dealing with so-called diseases of affluence: cancer, heart diseases and strokes (plus HIV/AIDS, a non-traditional infectious disease). While these have not yet been entirely defeated, a vast array of new treatments, drugs and technologies now exist to mitigate their effects.

During the second half of the twentieth century, the diffusion of technology from the rich to lower-income countries, as well as greater wealth in the lower-income countries, led to what has been described as the third of three great waves of mortality decline (Gwatkin, 1980). This period saw an increased access to safe water and sanitation services in lower-income countries. Such access, coupled with increases in per capita food supplies, basic public health services, greater knowledge of basic hygiene, and newer weapons (such as antibiotics and tests for early diagnosis) were instrumental in reducing mortality rates.

As a result of these advances, life expectancies lengthened worldwide, not just in the richest nations. Average global life expectancy increased from 46.6 in 1950–1955 to 66.8 years between 1950–1955 and 2003, as technology, including knowledge, was diffused around the world (World Bank, 2005). Figure 1 illustrates the correlation between wealth and health, showing that life expectancy increases as GDP per capita increases.[1]

Figure 1 **Life expectancy vs. income**
1977–2003



Source: Goklany, I., forthcoming

Trade and health

It is clear that humanity owes its current, unprecedented good health to growing prosperity and the diffusion of advances in knowledge. This knowledge would be of limited value without the economic resources required to implement it; sewage systems are expensive, for example, as are mass vaccination programmes or the construction of hygienic dwellings.

But much of this economic growth and diffusion of health knowledge could never have been achieved without the dramatic increases in international trade that characterised the late nineteenth century and second half of the twentieth century. Before the late nineteenth century, cross-border trade was confined to handful of nations. Today, all countries trade internationally and, with the occasional exception such as North Korea, they trade significant – and increasing – proportions of their national incomes. While higher income countries still accounted for three quarters of global trade in 2000, lower income countries have recently seen their share climb by one third as they cut tariffs and dismantled other barriers to free trade. The average tariff in lower-income countries has fallen from 25 per cent in the late 1980s to 11 per cent today (World Bank and IMF 2005). According to the WTO, lower-income countries now command 31 per cent of global merchandise trade, their highest level since the 1950s (WTO, 2005).

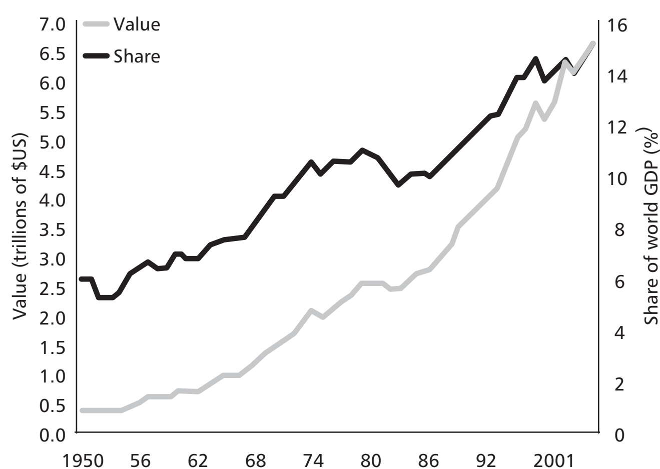
Barriers to open markets

Lower-income countries have been able to begin participate successfully in global markets partly through abandoning the old protectionist policies of the post-war period. Chief among these was Import-substitution industrialisation (ISI), which was promoted very widely after World War II and was implemented aggressively and enthusiastically in many lower-income countries, especially in post-independence Africa.

The justifications for ISI policies were twofold. First, it was taken as a given that development required industrialisation. Second, it was supposed that governments could speed this process up by preventing imports of industrial goods – thereby encouraging the development of a local industry.

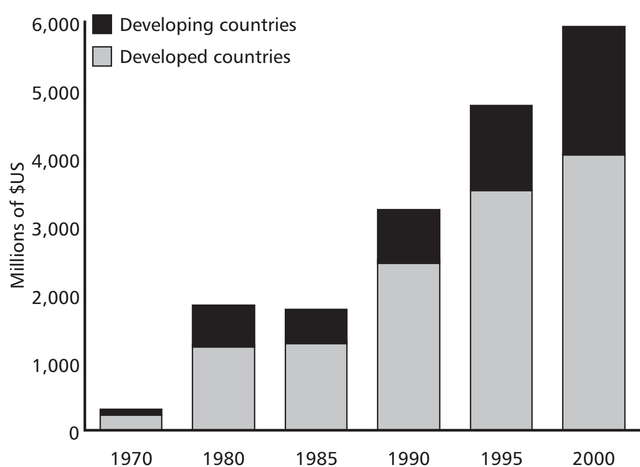
Following the advice of proponents of ISI, Brazil and other Latin American economies put massive restrictions – quotas, tariffs, and outright bans – on imports of industrial goods. As a result, there was a temporary rise in industrial output. This is not surprising: if you restrict

Figure 2 **World exports of merchandise**
1950–2003



Source: WTO

Figure 3 **International trade**
Developing and developed countries, 1970–2000



Source: WTO

the import of goods that people have traditionally imported, then local production will compensate to some extent.

However, the initial cost was a reduction in agricultural output, as productive factors moved into industry and away from agriculture, and a migration of people from the countryside into the cities. After a period of time, industrial output began to level off. This was mainly because the output was no longer competitive. Because it was no longer possible to purchase essential productive inputs from abroad, efficiency of outputs was constrained. The costs of inputs rose and so competitors overseas did better.

To save the industries that had been sponsored by import-substitution policies, governments started to subsidise them. To pay for these subsidies, they raised taxes on agriculture and monetized government debt through inflation. The net result was hyperinflation, combined with unemployment and negative growth.

In addition, it created social chaos. This is because many people had migrated to towns and were now unemployed. If they had been unemployed in the countryside, they would have had their social support networks that had been developed over decades. But the new migrants to towns hadn't developed such networks.

Open trade improves health

Fortunately, by the close of the Uruguay Round of negotiations in 1994, most countries had agreed to move away from this counterproductive strategy and lower significantly their protectionist tariffs. In many countries, this set the stage for rapid economic growth and deepening integration in the global economy.

As well as being a period of increasing global trade and economic activity, the second half of the twentieth century also saw remarkable improvements in health in most lower-income countries. Between 1950–55 and 2003, for example, India's infant mortality fell from 190 to 63 per 1,000. In fact, life expectancy in low and middle income countries has risen steadily since the middle of the 20th century, with the exception of sub-Saharan Africa in the 1990s. This progress took place against a backdrop of increasing international trade.

Can any link be drawn between the increasing global importance of trade and improving health in the developing world? It could be that increasing national wealth that comes from engaging in international trade allows individuals and governments to afford technologies and infrastructure that are propitious to health. A wide and increasing body of literature demonstrates that increasing volumes of trade are causatively associated with robust economic growth (for example, Dollar, 1995; Dollar & Kraay, 2001; Frankel & Romer, 1999; Sachs & Warner, 1995). And, as we have seen, rising incomes are result in better health, mainly because they allow people to buy improved sanitation, cleaner fuels and more advanced health technologies.

In this way, opening up a country to trade is a powerful way of improving the health of its population. This thesis is confirmed by the as yet small literature on the relationship between trade liberalisation and health. In their panel study of 219 countries, Owen and Wu (2004) found that increased openness to trade is associated with lower rates of infant mortality and higher life expectancies, especially in lower-income countries. Wei and Wu (2002) also illustrate that higher trade openness (especially when measured with a lower tariff rate) is associated with a longer life expectancy and lower infant mortality. The recent experiences of countries such as China, India and Vietnam, whose health indicators have improved as they have pursued more liberal trade policies, provides a powerful and tangible confirmation of this point.

Future generations in lower-income countries stand to accrue even greater financial and welfare gains if trade is further liberalised. According to a recent study by the World Bank, the abolition of tariffs, subsidies and domestic support programs would boost global welfare by nearly $300 billion per year by 2015. Close to two-thirds of these gains would come from agricultural trade reform, because agriculture is so much more distorted than other sectors. Furthermore, lower-income countries would receive 45 percent of global gains from completely freeing all merchandise trade. As poor countries have a much smaller share of global wealth, their potential gains from trade liberalization are disproportionately large, amounting to more than twice their share of global gross domestic product (Martin & Anderson, 2005).

Knowledge spillover: the healthy side-effect of free trade

Although the economic benefits of international trade are of fundamental importance to understanding the relationship between free trade and health, trade may also be beneficial for health in other ways. In fact, some economists believe that the spread of health-related knowledge that accompanies trade liberalisation is one of the primary determinants of health in lower income countries (Deaton, 2004; Owen & Wu, 2004; Jamison, Sandbu & Wang, 2001). This is because much of the knowledge about how to improve human health – from vaccines to the germ theory of disease – has been widely distributed to all parts of the world from the richer countries where it was first developed.

When the costs of trade are lowered, it becomes easier to disseminate to other countries knowledge, techniques and medical products from the countries that developed them. For example, the discovery by John Snow in London in 1854 that cholera is spread by contaminated water was to have significant implications for the prevention of infectious diseases throughout the world. This knowledge gradually filtered from London throughout Europe, leading city authorities to upgrade their water and sewage systems in order to prevent human waste contaminating water supplies (Williamson, 1990). Today, germ theory is widely understood and recognised by public health authorities all over the world as an important tool for fighting disease (even if the resources do not always exist to construct and maintain effective water management systems).

Similarly, lowering the costs of trade can speed up the rate at which proven medical technologies can be adopted by other countries. Some of the most effective and simple medicines such as antibiotics and vaccines were first developed in richer countries, but the international manufacture and trade of such technologies has allowed them to become readily available in most parts of the world. It is likely that the adoption of such technologies by the poor countries in Asia in the post-war years is largely responsible for the remarkable declines in their crude death rates in this period.

In the 1940s, Asia ended several decades of relative economic and cultural isolation, and started to integrate into the global economy. This brought with it a massive transfer and diffusion of public health programmes, technologies and techniques that originated in richer countries. The 1920s to 1940s had seen huge advances in medical discovery, including penicillin, sulfa drugs, bacitracin, streptomycin and chloroquine. With the arrival in Asia of these and other drugs, effective treatments for the diseases which had once killed millions were now available at low cost. Furthermore, the invention of DDT in 1943 gave authorities a hugely powerful weapon in the fight against malaria which allowed the disease to be eradicated from the US and Europe, and to lower caseloads by over 99 per cent in parts of Sri Lanka and India (Gramiccia & Beales, 1988). As a result of the widening availability and decreasing cost of such interventions – made possible by freer trade – crude death rates dropped steeply, particularly in eastern Asia in the late 1940s. By the 1950s and 1960s fewer and fewer children and young people were succumbing to the easily preventable diseases which had historically depressed the region's health indicators, and life expectancy was on the rise throughout the region (Bloom & Williamson, 1998).

This process continues today as new drugs and medicines that are invented in one place are made available on international markets. Even though nearly all drugs start their life protected by patents, these eventually expire, opening the market for generic competition. As a result, many off-patent medicines are available throughout the world at extremely low prices – allowing people in poorer countries to benefit from the knowledge and innovation of more affluent parts of the world. More recent examples of this would include antiretroviral drugs and statins, as well as items such as neonatal intensive care units, kidney dialysis equipment, screening equipment and myriad other modern medical devices. Of course, many drugs that are on-patent are also subject to competition from other medicines in the same class. Moreover, with price differentiation on-patent drugs may be made available to poorer people at prices close to the cost of production.

Taxes and tariffs delay technology transfer

The benefits from this technology transfer would be even greater if lower-income countries were to abolish the many tariffs and taxes they impose on medicines. Tariffs often significantly inflate the end-user price of pharmaceutical in lower-income countries and act as a barrier to the effective distribution of drugs and medical technology. A 57 country study conducted on behalf of the European Commission in 2003 found that lower-income countries impose significant taxes and tariffs on imported drugs, with India imposing a combined rate of 55 per cent, Nigeria 34 per cent and Pakistan 33 per cent (European Commission, 2003). Often governments claim such taxes are necessary to protect the domestic pharmaceutical industry, but in reality they simply serve to deny patients the best quality medicines at the lowest prices.

Anecdotal evidence suggests that foreign companies wishing to export medical devices such as pacemakers to India face tariffs of around 50 per cent – even though cardiovascular disease accounts for one fifth of all deaths in India and the World Health Organization estimates that 60 per cent of the world's cardiac patients will be Indian by 2010. In spite of this, the country has no domestic pacemaker manufacturers and imported ones are taxed heavily. As a result, Indian patients frequently have to make do with inferior, older or refurbished pacemakers, if they are lucky enough to get one at all (Anilkumar & Balachander, 2004).

Other technologies

Despite the stultifying effect of tariffs on the dissemination of medicines and other health technologies, the 'knowledge spillover' argument gains further support from a study conducted by economists Angus Deaton and Christina Paxon in 2004. They showed that mortality trends for infants and the middle-aged tend to appear about four to five years earlier in the US than the UK. This may be because the more market-orientated US healthcare system allows for a speedier adoption of new technologies than the state-run UK system, even if those technologies were not originally invented in the US. Free trade allows providers in the US health market to adopt those new technologies and drugs as soon as is practicable, in order to maintain competitive advantage. This is obviously beneficial to patients.

Similarly, lowering the cost of trade has resulted in a massive take-up in both wealthy and poor countries of communication technologies such as television, radio and the internet. This has helped to improve global health by facilitating the spread of ideas such as the health consequences of smoking or exercise. Finally, there is some evidence that increased trade has a positive effect on the quality of governance institutions, thereby leading to a policy environment which is more conducive to better health (Owen & Wu, 2004). This study also demonstrated that the improved health outcomes resulting from increased volumes of trade were most powerfully experienced in poorer countries.

Trade agreements and health

The resurgence of free trade following the economic destruction of the Great Depression and Second World War owes much to the development of a world trading regime, and more specifically, the creation of the General Agreement on Tariffs and Trade (GATT) in 1947. This institution hoped to promote the simple idea that if a person in one country produces goods or services people in other countries want to buy, then they should have the right to sell it to them without interference from the state. From this beginning, the world trade regime has today evolved into the most prominent example of international cooperation. Successive rounds of trade liberalisations have seen tariffs tumble, trading practices standardised and many more countries brought into the world trading system.

The GATT has now been subsumed within the World Trade Organisation (WTO), which operates on the widely accepted premise that human welfare will increase through economic growth based on trade liberalisation in the context of non-discriminatory rules, reciprocity, fairness and transparency. Whereas the dispute settlement body of the original GATT had limited powers of enforcement, the decisions of the WTO's dispute settlement body are automatically binding and enforceable, primarily through sanctions.

Trade in services

However, the rise of the more binding trading regime faces heavy opposition and criticism, particularly from activist NGOs who claim to represent public health interests. Much of this stems from the details of particular Multilateral Trade Agreements (MTAs). While MTAs are intended to facilitate free trade and knowledge transfer, they are denounced by activists as being injurious to public health – particularly in lower-income countries. The most high profile of these among health campaigners has been the WTO's Trade Related Aspects of Intellectual Property Rights (TRIPS), which will be discussed below, but it might be that the WTO's General Agreement on Trade in Services (GATS) is of equal or more relevance to public health.

The GATS, negotiated by some 120 countries, came into force in 1995 and aims to create a favourable climate for trade in services under conditions of transparency and progressive liberalisation.[2] It does this by allowing countries to make binding commitments to lower trade barriers. With specific respect to healthcare, the agreement covers the areas in the table below.

Critics of the GATS, however, interpret it as requiring the privatisation of health services, a challenge to governments' ability to regulate their own health providers and to determine the shape of their health systems (Sinclair, 2000; Pollock & Price, 2003). For instance, critics claim that the wording of the agreement does not specifically exempt all government provided healthcare from the auspices of the GATS (Krajewski, 2001). Another area of controversy is the extent to which the GATS allows governments to regulate healthcare providers, with some arguing that it would "outlaw the use of non-market mechanisms such as subsidisation, universal risk pooling, solidarity, and public accountability in the funding and delivery of services" (Pollock & Price, 2000). Finally, critics contend that the GATS is democratically illegitimate, because it sacrifices some of the sovereign nation's ownership of its overall health policy to a trade regime that is subject to external forces and actors (Sinclair, 2000).

An assessment of the GATS by Leah Belsky *et al* in 2004 shows most of these fears to be groundless. Although there are concerns that the rules of the GATS are so vague that they do not specifically exclude publicly provided health services (Krajewski, 2001), this is irrelevant because countries still retain the right to regulate all providers – public as well as private. Furthermore, although countries are limited in the policies they pursue towards sectors that they have committed to the GATS, countries can choose whether or not to participate, and are free to pick and mix which sectors to commit. It is therefore inaccurate to claim the GATS undermines national sovereignty, because it is something a country voluntarily imposes on itself. Moreover, it is difficult to argue that the GATS represents a particularly outrageous example of democratic illegitimacy – to argue that would be to argue that all decisions made on trade policies are democratically suspect. And seeing as trade agreements within the WTO are only finalised with the consent of the legislators of member states, they are in many ways more democratic than other supranational bodies such as the UN and EU.

These concerns aside, it is worth stating the positive effects on public health that a trade liberalising commitment such as the GATS could have. Committing to the GATS could have significant overall benefits, mainly because it helps speed up the "knowledge spill-over" and technology transfer that we have already seen is crucial to improving health. It could also act as a way for countries to earn significant amounts of export earnings, thereby contributing to their economic growth.

Modes of trade	*Health services*
Cross border trade	Telemedicine
Consumption abroad	Patients seeking treatment abroad ('medical tourism')
Commercial presence	Foreign commercial presence in the hospital or insurance sectors
Presence of natural persons	Temporary movement of health professionals to provide services abroad

Countries enjoying a comparative advantage in the provision of health services would obviously benefit from liberalisation; while this mainly applies to wealthier nations, certain lower-income countries such as India are rapidly developing world class specialisations and capabilities across a range of medical disciplines.

Telemedicine

Telemedicine is the most obvious area of medical services that could be supplied across borders. Although telemedicine provision is still relatively embryonic, its future potential is enormous. Decreasing communications costs are broadening the scope for doctors to examine x-rays or even to perform telesurgery on a patient in an entirely different country. Clinical, surveillance and epidemiological information could also be disseminated through telecommunication technologies, such as the internet. These modern innovations make it far easier for doctors to keep up with the latest medical literature and knowledge than in the past, even in the most world's most remote regions.

Communications technologies have the power to drive down costs, as hospitals will commission the services of the most competitively priced provider, and will no longer have their choice limited by location. Telemedicine can help professionals in remote areas consult with specialists in urban centres, thereby reducing much of the need for costly referrals. Telemedicine could help extend the scope of clinical trials, adding the potential to include rural participants, for instance, or a wider range of races and ethnicities. For the patient, telemedicine can remove the need for costly, difficult travel and lessen delays between referral and treatment (Hailey, Roine & Ohinmaa, 2002).

There is also evidence that telemedicine can be of direct benefit to lower income countries. One study found that a teleophthalmology project between the United Kingdom and South Africa helped practitioners to improve their limited ophthalmic knowledge, and also to reduce the burden of eye disease (Johnston et al, 2004). Indeed, lower-income countries possibly stand to accrue greater benefits from telemedicine than rich countries. A lack of access to qualified medical care and suitable infrastructure has long been recognised by public health experts as one of the main barriers to good health in poor countries. A major related problem is attracting specialists to rural and suburban areas. It would be far easier, therefore, to build and maintain the communications infrastructure required to use telemedicine than to place expensive medical specialists in rural areas.

Telemedically training doctors for resource poor settings

The Johns Hopkins School of Medicine has established a new centre designed to provide clinical training to health care providers in parts of the world where resources and infrastructure are limited or lacking. The Center for Clinical Global Health Education (CCGHE) aims to use advanced telemedicine technology and Johns Hopkins experts to provide clinical training to health care workers around the world in an efficient and cost-effective manner. "Recently, many donors have made it possible to obtain HIV/AIDS medications for some of those infected adults and children in resource-limited settings," said Robert Bollinger, director of the new centre. "Unfortunately, these medications help only a fraction of these infected populations. These countries lack experienced, trained health care providers to dispense the drugs effectively and safely." [3]

Consumption abroad

There is an increasing trend for patients to travel internationally in order to seek out the best quality care, at the lowest cost and with the minimum of waiting. Currently, medical tourists are travelling in large numbers to India, South East Asia, Latin America and South Africa, where there are many high quality medical facilities. Many medical tourists come from regions of the world where state-of-the-art medical facilities rarely exist; others come from countries like the UK and Canada where public health-care systems are so overburdened that it can take years to get needed care. Another driver of medical tourism is cost: surgery in India, Thailand or South Africa can cost one-tenth less than the United States or Western Europe, and sometimes even less. The

GATS helps to provide the framework through which patients can access these services.

Ten years ago, levels of medical tourism were insignificant. Today, more than 200,000 patients every year visit Singapore — nearly half of them from the Middle East.[4] It is estimated that in 2005 approximately half a million foreign patients will travel to India for medical care, whereas in 2002, the number was only 150,000. This goes some way to relieving the burden on increasingly cashed-strapped health systems in the rich world, while creating greater incentives for highly-trained medical staff to remain in their country of origin, instead of taking their expertise overseas. Furthermore, the GATS provides a mechanism by which countries can exchange medical students, thereby further increasing the rate of knowledge transfer.

Attracting foreign patients can also be a considerable source of foreign exchange for lower-income countries. Medical tourism could bring India as much as $2.2 billion per year by 2012, according to a study by management consultants McKinsey and Company and the Confederation of Indian Industry. Argentina, Costa Rica, Cuba, Jamaica, South Africa, Jordan, Malaysia, Hungary, Latvia and Estonia have all entered into this market, or are trying to do so, with more countries joining the list every year.

Commercial presence

The GATS provides a rules-based mechanism through which commercial providers of health services – such as hospitals or insurance providers – may operate in a foreign country. While countries such as the US and UK are becoming increasingly open to foreign private health investment, poorer countries such India, Indonesia, Nepal, Sri Lanka and Thailand are also beginning to tread a similarly liberal path in this area (WHO, 2002). There are several reasons why this kind of trade is important for speeding up the 'knowledge spill-over' that we have seen improves public health.

First, the presence of additional foreign capital will accelerate the speed at which new medical technology can be adopted. Foreign providers will also bring with them advanced management techniques, which will increase efficiency of local hospitals.

Second, the development of high quality medical services will provide additional employment for medical professionals, and thereby help to retain them in the country. It is often the case that consulting surgeons divide their time between the private and public sectors. If their choice of employment is limited to the public sector, they will have few incentives to keep them in the country. The presence of foreign commercial providers can thereby help to overcome the so-called 'brain drain' that has been affecting medical services in certain lower-income countries.

Third, foreign providers and private capital within a foreign country can also go some way to easing the burden on cash-strapped public services, by reducing the numbers of patients needing treatment.

Finally, it might also be that the GATS speeds up the introduction of private health insurance in lower-income countries, which would be a positive development for those who are denied access to care by inefficient and iniquitous public monopolies. This can only improve overall access.

Presence of natural persons

The GATS provides a legal framework through which individual medical professionals can move between countries in order to practice. This is a contentious issue, because the greatest movement of health professionals is from lower-income countries to rich countries, where salaries are higher and working conditions better. In many lower-income countries, medical professionals find it hard to find employment in their own professions, and often resort to working in low-skilled jobs.

In the popular media, this is phenomena is depicted as an entirely negative 'brain drain' that saps the health systems of lower-income countries of capacity and resource. However, the so-called 'brain drain' of medical personnel may in fact make some positive contributions to knowledge spill-over and contribute to a country's foreign exchange via remittances. Many medical professionals acquire skills that they would be unable to at home, and in many cases they bring those skills with them when they return. In health research, scientists migrating from lower-income countries can promote

research activity in priority areas relevant to their countries, thereby helping to improve the allocation of health research funding to these areas. Furthermore, allowing the free movement of peoples ensures that human potential does not go untapped. It is worth bearing in mind, for example, that Albert Einstein would have been unable to develop his theories if he had remained in Nazi Germany in the 1930s.

From a broader philosophical perspective, the idea that particular classes of individuals should have their freedom of movement constrained by governments is distastefully authoritarian. Those who call for legislation to stop the international movement of health professionals seem to be implying that these people are the financial property of governments. It seems deeply illiberal to want to constrain people from fulfilling their aspirations and potential in such a way.

TRIPS and technology transfer – the case of India

Bringing intellectual property issues into international trade law has been controversial since the WTO's Trade Related aspects of Intellectual Property Rights (TRIPS) agreement was first signed in 1994. Much of the subsequent debate has focused on whether or not enforcing patents on pharmaceutical products hinders access to medicines in lower income countries. The agreement tries to balance the need to ensure access to medicines with the need to protect the investment of innovators. Without such protection, it is unlikely that the private sector would invest the considerable sums required in order to develop new drugs.

This paper, however, does not intend to dwell too long these aspects of the TRIPS debate, which are by now familiar to all those with an interest in public health. Rather, it would more interesting to examine how the TRIPS agreement can affect technological and knowledge transfer.

India is one example which is worth close examination. In order to become compliant with TRIPS, India enacted a patent law in early 2005. The early signs are that this has led to increased investment into drug research and development (R&D) in India by local and multinational companies, which should in time result in cheaper drugs more specifically tailored for the needs of the Indian population. In this way, India stands to benefit not only from the pharmaceutical expertise that the multinationals bring with them, but also from increased levels of foreign direct investment which helps to boost the economy. There is also some evidence that the new laws are creating a climate that is tempting skilled Indian scientists and researchers back home from the US and Europe.[5]

However, this move by the Indian government has been met with much opposition from various health campaigners and so-called 'public interest' groups, who believed that India's compliance with TRIPS would switch off the world's greatest source of cheap medicines because Indian generics companies will no longer be able to copy vital medicines that are on-patent elsewhere.

But this claim is bogus. Of the medicines that Indian generics firms produce, 97 per cent are off-patent, so the law will affect, at most, 3 per cent of all drugs produced in the country. Moreover, fewer than 2 per cent of the medicines on the World Health Organisation list of essential medicines are currently on patent (Attaran, 2004), so it is simply not possible that the new Indian patent law will have a significant impact on access to medicines in other parts of Asia and Africa.

Prior to the implementation of TRIPS there were approximately 20,000 companies in India producing pharmaceuticals, some of them still on-patent in other countries. Nevertheless, it was estimated in 1999 that less than 40 per cent of the population had access to any kind of medicine (Lanjouw, 1999). The implementation of TRIPS-compliant patent law has no doubt reduced the number of companies producing copies of drugs – estimates put the number at around 9,000 – but it has had no discernable impact on rates of access to medicines, which remain deplorably low. The fact is that there are far more serious problems at play that affect access to medicines besides intellectual property rights, such as an entirely inadequate medical infrastructure.

Nevertheless, the recent changes in India's intellectual property law are already stimulating Indian firms to research and develop drugs for diseases that predominantly affect the local population. For instance, the company Nicholas Piramel has recently opened a

$20 million research and development centre in Bombay to carry out basic research in a wide range of disorders, ranging from cancer to malaria. This latter disease is contracted by at least 600 million people annually, predominantly in poor countries, including India. Ranbaxy, India's largest pharmaceuticals company, and Dr. Reddy's are also pursuing similar R&D projects. India currently has the largest number of approved pharmaceutical manufacturing companies outside the US, and has increased spending on R&D from 4 per cent, five years ago, to 8 per cent today.[6]

The change in patent law is also attracting significant foreign investment. Multi-national pharmaceutical companies such as Merck and Bristol-Meyers Squibb now see India as a prime location for establishing research facilities. India is attractive not only because of its lower basic costs, but also because of the many well-educated researchers that can reliably conduct capital-intensive clinical trials and more complicated forms of later stage drug development. The management consultants McKinsey estimate that by 2010, US and European pharmaceutical companies will spend $1.5 billion annually in India on clinical trials alone (Padma, 2005).

Many Western firms are also seeking to partner with local expertise. A collaboration between Danish-based Novo Nordisk and Dr. Reddy's to create a new treatment for diabetes is a recent example. Japanese firms have also expressed interest in investing substantial sums into Indian R&D projects. Instead of imposing prohibitive barriers, as it once did, the Indian government has been actively courting these foreign investments by providing incentives, such as a ten year tax break to pharmaceutical companies that are involved in research and development.

Such developments mean that an Indian firm may well develop a vaccine for malaria or improve current tuberculosis therapies, resistance to which contributes to the deaths of over 1,000 people each day in India alone. Investments are even going into R&D for a vaccine for HIV/AIDS. Human trials are underway for the second preventative HIV vaccine candidate that India has produced.[7]

In a relatively short time, India's new patent law is also speeding up collaboration between the information technology sector and the pharmaceutical and biotechnology industries. Until recently, the fledgling research-based biotech and pharmaceutical sectors relied on patenting in the U.S and Europe. They have also faced difficulties in establishing joint ventures with IT companies because of weak local patent laws and the reluctance of foreign businesses to make large, risky commitments. Now, instead of exporting raw materials and basic active ingredients that go into cheap generics, firms in India now have the ability to compete globally, producing high value-added, life-saving medicines. This will also contribute to the country's continuing economic growth which has seen its life expectancy rise from 36 years in 1951 to its current level of 61 years.

Free Trade Agreements

The growing tendency of the United States to sign bilateral and regional Free Trade Agreements (FTAs) has, like TRIPS, given rise to the fear that trade agreements might damage health by prioritising intellectual property considerations over access to medicines. The US currently has FTAs with Jordan, Chile, Singapore, Morocco, Australia, Bahrain and a group of six Central American countries (the Free Trade Area of the Americas). The US is in advanced negotiations with Thailand, Andean countries, five Southern African Customs Union, or SACU, countries and 34 Latin American and Caribbean countries. But, similarly to TRIPS, these FTAs can improve health by promoting technology transfer and enriching signatory countries.

There is some scepticism about FTAs. For instance, some activist groups assert that certain intellectual property provisions in FTAs will prevent countries from making use of safeguards provided in the Doha Declaration on the TRIPS Agreement and Public Health. Signed by all WTO member countries, the declaration restated flexibilities in TRIPS that allow countries to take necessary measures, including the compulsory licensing of medicines, to protect public health. A further clarification in August 2003 ensured that third countries could also compulsory-license drugs for export to poor countries lacking manufacturing capability.

But the activists' claim that FTAs "kill" by tipping the "public health versus private intellectual property" balance in favour of the commercial interests of American pharmaceutical companies is simply untrue. All the FTAs have language that expressly states that the FTA will not restrict any flexibility permitted under TRIPS, or the Doha Declaration, to protect public health. Where this language does not appear in the main agreement, the U.S. and its partner country (or countries) have signed binding "side letters" to the same effect.

When campaigning against FTAs, many activists raise the spectre of patent terms that go beyond the TRIPS' minimum of 20 years, thus suggesting a situation where poor people would have to wait 20 years or more before they can get access to generic drugs. But, as we have seen, 95 per cent of drugs on the World Health Organization's essential-drugs list are off-patent and will remain so (Attaran, 2004). Similarly, drugs patented in the US, but not in other countries, including many anti-retrovirals, cannot gain patent protection now.

In any case, no drugs have a *de facto* 20-year patent term. It typically takes between 10 and 12 years to take a molecule through testing and regulatory approval – all of which occur after a patent has been granted, since no company would invest in an unpatented molecule. Meanwhile, it can take between one and three years to obtain a patent after filing. Therefore, most drugs have an effective patent term of six to ten years, often less. According to the U.S. Food and Drug Administration (FDA), the average patent life remaining after marketing approval in 2001 was 7.8 years out of the original 20 years of patent protection (FDA, 2002). By contrast, other industrial sectors enjoy an average patent life of more than 18.5 years. Some FTAs do provide for patent term restoration, but only in the case of unnecessary delays in marketing approvals. In the US, where such legislation exists, this extra term typically does not exceed two years. In other words, most drugs would still have far less than 20 years of exclusivity.

While TRIPS allows governments to protect public health, it is also designed to encourage countries to respect intellectual property by refraining from copying existing drugs, such as Viagra and other "lifestyle drugs." In doing so, they will attract investment and also help to grow their own innovative industries. This will allow for greater technology and knowledge transfer, as multinational companies will feel that they can operate in a country free from having their property misappropriated. By protecting intellectual property, FTAs encourage innovative product launches by local pharmaceutical industries. Since the U.S.-Jordan FTA was signed in 2000, for example, there have been more than 32 new product launches in Jordan (USTR, 2004).

To be sure, FTAs are a second-best solution to free trade. Nevertheless, they are an improvement on the then-prevailing situation, freeing up trade and improving economic wellbeing. This will allow countries to spend more on healthcare, as well as enabling individuals to improve their living conditions and thus improve health. They also encourage knowledge and technology transfer by improving the operating environment for innovative pharmaceutical companies.

Conclusion

Although it is clear that free trade stimulates two of the most significant determinants of health – economic growth and technology transfer – it is still faced with much scepticism from a diverse range of people. These include industry lobbies who fear international competition, activists who seek to curtail the freedom of the private sector, and governments who dictate policy according to the wishes of special interest groups. Opponents contend that free trade is a bad thing because of the perception that it can create winners and losers. Despite considerable empirical evidence to the contrary, there is also intense suspicion that economic growth can actually improve human well-being. Frequently, these dissenting views are articulated as the official voices of bodies such as the UN and its agencies, which seem to believe that addressing inequality is a higher priority than promoting economic growth.

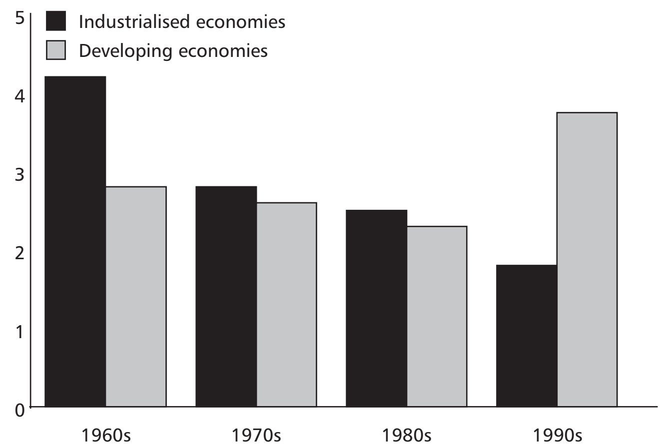
One document which embraces this stance is the UN Development Programme's 2005 Human Development Report, which argues that more foreign aid is required to address the widening inequalities that it considers to be the main barrier to meeting the Millennium Development Goals. The document is also sceptical of

the power of free trade to ameliorate the human condition. It suggests that free trade can worsen inequalities in health, education and income in lower-income countries. This view also forms the basis of the World Health Organization's Commission on the Social Determinants of Health, and it is also discussed in the World Bank's 2006 World Development Report.

A global obsession with eliminating 'inequality' somewhat misses the point where health issues are concerned. Rising health inequality does often accompany economic growth, but it is important to recognise that economic growth rarely – if ever – damages overall population health. In fact, the empirical evidence shows the exact opposite occurs. In his analysis of data from 42 countries, Adam Wagstaff (2002) finds that in both rich and poor countries, health inequalities do indeed rise with rising per capita incomes. This is due in part to improving availability of new health technology that accompanies economic growth, which can be taken up more speedily by the rich than the poor. However, it is important to note that the poorest people do not get *less* healthy as the society's wealthier elements get healthier. Rather, they become healthier as well, but at a slightly slower rate than those who are relatively wealthier. But if lower-income countries hope to overcome these inequalities by managing trade via import substitution policies and the like, it is probable that economic growth will be retarded and poverty perpetuated, leaving people unable to afford clean fuels, proper sanitation and healthy living conditions.

For those concerned with inequality from a normative stance, it is also worth remembering that the startling rises in individual prosperity witnessed in recent years in India and China have contributed enormously to reductions in global health and educational inequalities. Although global incomes are diverging (largely as a result of Africa's failure to promote economic growth), human development indicators have been converging rapidly throughout the world during the last half century. Economist Charles Kenny recently noted that although the gaps in incomes between the richest and poorest countries are widening, most countries are speedily converging in development indicators such as health and education (Kenny, 2005). This is partly because the processes of free trade and economic

Figure 4 **Growth rate of per capita GDP**
%



Source: adapted from Dollar, 2004

globalisation have enabled a far more rapid transfer of technology and knowledge from rich to poor countries than was possible in previous centuries. A study by World Bank economist David Dollar has shown that the acceleration of economic globalisation and trade flows in the later stages of the 20th Century has also allowed the rate of economic growth in lower-income countries to outstrip that of rich countries for the first time in history (see Figure 4). Furthermore, the number of poor people in the world is declining – by 375 million people since 1981, even while the world population increased by 1.6 billion in the same period.

Opponents of free trade, by contrast, fail to recognise its hugely beneficial impact on humanity. They see it as a zero-sum game in which higher income countries and multinational companies exploit the poor and marginalised. Anti-poverty activists consistently push the message that trade liberalisation is bad for the poor, because they are unable to compete against the financial and technological superiority of producers from richer markets.

Often opponents of free trade wilfully mistake 'free trade' for what is actually managed trade. One current anti-free trade campaign spearheaded by the NGO Christian Aid disingenuously promulgates the notion

that African farmers are suffering because of free trade with rich countries,[8] whereas the most cursory acquaintance with the facts reveals that they are suffering from the lavish subsidies and protectionist tariff barriers represented by the Common Agricultural Policy (CAP). This is clearly not free trade, and is obviously bad for both farmers in poor countries and consumers in rich countries. But when the impact of *genuine* free trade on population health is measured by economists, the evidence suggests that it is a force for good, helping to improve life expectancy and infant mortality (Wei & Wu, 2004).

Countries that embrace free trade and reject import substitution policies will not only improve health through better economic performance, but will make it possible for consumers to acquire higher quality, less expensive goods that contribute to human health. Mortality and morbidity in lower-income countries, for example, are greatly increased by the indoor air pollution that arises from burning primitive biomass fuels such as cow dung. Free trade would make imported, cleaner fuels such as gas and kerosene cheaper and more readily available, and would indirectly pressure governments to reform their energy sectors. Similarly, a large part of the disease burden in the poorest countries is directly attributable to dirty water, so free trade in water purification and related technologies would be also extremely beneficial. Finally, free trade in foodstuffs would allow a far better match between supply and demand than is currently the case in many parts of the world, and would help combat malnutrition – a significant determinant of health. This is particularly true of many African countries, who needlessly erect swingeing tariff barriers between themselves in order to protect their local agricultural sectors. The result is more expensive food, shortages and, on occasion, famine.

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Notes

1. The smoothed curves in this figure are based on log-linear regression analysis. N = 268 for 1977 and 2003 cumulatively; adjusted R2 = 0.56. The increase in life expectancy due to increase in income and the passage of time are both significant at the 99.9 percent level.

2. From the preamble to the GATS, available at http://www.wto.org/english/docs_e/legal_e/26-gats.pdf

3. http://www.jhu.edu/~gazette/2005/31oct05/31center.html

4. http://www.expresshealthcaremgmt.com/20050731/medicaltourism01.shtml

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6. http://www.businessweek.com/magazine/content/05_16/b3929068.htm

7. http://www.advocate.com/news_detail_ektid19293.asp

8. http://www.pressureworks.org/dosomething/act/votefortradejustice.html

Free trade for better health

by Philip Stevens

Free trade is a powerful mechanism for improving the health of the world's poor. It leads to enhanced competition, which drives improvements in products and processes – leading to economic growth. It also enables 'technology transfer', ensuring that advances made in one market rapidly become available elsewhere.

As a result, free trade leads to greater prosperity, and improves access to clean water, clean energy, food, sanitation and other goods necessary for health. This has contributed to the dramatic increases in worldwide life expectancy of the last fifty years.

The rise of the multilateral trading regime under the auspices of the GATT and later the WTO has contributed to a massive liberalisation in global trade that has seen new health knowledge and technologies, and wealth, spread to nearly all corners of the globe.

Nevertheless, multilateral trade agreements from TRIPS to GATS have been met with scepticism from self-styled health activists and campaigners, who accuse them of holding up technology transfer and even disenfranchising the poor.

But are such allegations grounded in reality? A review of the evidence suggests not. These agreements and trade liberalisation generally have contributed to a significant transfer of technology and expertise, which has had great benefit for the poor.

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