Global public goods and health: taking the agenda forward

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Abstract We examined recent special health initiatives to control HIV/AIDS, malaria, and tuberculosis, and make four policy recommendations for improving the sustainability of such initiatives. First, international cooperation on health should be seen as an issue of global public goods that concerns both poor and rich countries. Second, national health and other sector budgets should be tapped to ensure that global health concerns are fully and reliably funded; industrialized countries should lead the way. Third, a global research council should be established to foster more efficient health-related knowledge management. Fourth, managers for specific disease issues should be appointed, to facilitate policy partnerships. Policy changes in these areas have already begun and can provide a basis for further reform.

Keywords Health policy; International cooperation; Sustainability; Intersectoral cooperation; Communicable disease control; Financing, Health; Research; International agencies; Malaria/prevention and control; Acquired immunodeficiency syndrome/prevention and control; Tuberculosis, Pulmonary/prevention and control (*source: MeSH*).

Mots clés Politique sanitaire; Coopération internationale; Durabilité; Coopération intersectorielle; Lutte contre maladie contagieuse: Financement, Santé; Recherche; Organisation internationale; Paludisme/prévention et contrôle; SIDA//prévention et contrôle; Tuberculose pulmonaire/prévention et contrôle (*source: INSERM*).

Palabras clave Política de salud; Cooperación internacional; Sostenibilidad; Cooperación intersectorial; Control de enfermedades transmisibles; Financiamiento de la salud; Investigación; Agencias internacionales; Paludismo/prevención y control; Síndrome de inmunodeficiencia adquirida/prevención y control; Tuberculosis pulmonar/prevención y control (*fuente: BIREME*).

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Voir page 873 le résumé en français. En la página 873 figura un resumen en español.

Introduction

Health is a key concern of the global agenda. It is debated at meetings of the Group of Eight major industrial countries, and organizations and concerned actors have forged worldwide health coalitions to combat the mounting global disease burden. There have been a number of special initiatives, including the Global Alliance for Vaccines and Immunization (GAVI); Medicines for Malaria Venture (MMV); Global Tuberculosis Drug Facility (GDF); Stop Smoking campaign; and the Global Health Fund to fight acquired immunodeficiency syndrome (AIDS) and other communicable diseases in Africa. The initiatives are mainly concerned with human immunodeficiency virus (HIV)/AIDS, tuberculosis (TB), and malaria, and one objective is to encourage medical research and development (R&D) to focus on health problems that mainly affect the poor. Other goals are to help poorer countries procure medicines and strengthen their national health care services.

Current initiatives are emergency interventions in response to the growing burden of disease, which is unsustainable for many developing countries. The question now is what health policies are needed to sustain these efforts and prevent similar crises in the future? From an analysis of current health challenges from a global public good (GPG) perspective, we propose a number of policy options for collecting the current dispersed initiatives into a broader framework. The policies offer an expanded rationale for international cooperation on health matters and propose new financing arrangements. Policies for providing health-related information more efficiently are discussed, as is a new "matrix" approach to managing global health issues and initiatives. In today's world, globalization has brought about interdependencies that blur the distinction between domestic and external affairs. The best way to ensure one's own well-being is to be concerned about that of others.

Global public goods

Economic inputs to human well-being are classified as either private or public goods (*1*). Private goods are

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things such as bread, garments, and shoes, whose consumption can be withheld from other individuals (i.e. they are "excludable", according to economists). Typically, private goods have clear property rights attached to them. Individuals who desire excludable goods are willing to reveal their preference for them and the price they are prepared to pay. Because of this, most economists believe that private goods are best provided through market supply and demand.

Public goods, by contrast, are non-excludable and individuals cannot be prevented from partaking of them. They constitute goods in the public domain, available for all to enjoy. Examples include the lighthouse, peace and security, and law and order. Many goods are not only public in consumption but also in provision, since they depend on the contributions of many individuals. For example, peace depends on the relations we have with our neighbours, both within the country and abroad; and enjoying law and order often depends less on one's own attitudes and behaviours than on the general level of respect that others have for social norms and institutions. However, providers of public goods may not be adequately compensated through market-based negotiations, since individuals could hide their preferences to avoid claims that they benefit from the goods, which could oblige them to pay. As a result, there would be no natural incentive for their production. To avoid this, the state often implements policies that ensure cooperation and equitable burden-sharing, such as taxes to finance parks, roads, or other public facilities.

Global public bads (GPBs), like GPGs, can also be non-excludable, although their prevention is desirable, rather than their production. Examples include global atmospheric pollution, cross-border drug smuggling, international warfare, the global spread of communicable diseases and the emergence of drug-resistant microbial strains. The current approach of most GPG policies is to wait for the emergence of a GPB and then to respond on an emergency basis. This is exemplified by the belated world focus on AIDS at the United Nations (UN) General Assembly special session this year, 20 years after the disease was first identified, and after incidence rates soared as high as 15% in several southern African countries (*2*).

Given the current trend towards increasingly porous borders and growing cross-border activities, many public goods can no longer be achieved through domestic policy action alone and depend on international cooperation. Yet policy-making is still largely organized on a country-by-country basis and there is no international equivalent of the state. As a result, GPGs are increasingly underprovided and GPBs are increasingly overprovided.

Communicable disease control as a GPG for strengthening international cooperation on health

The globalization of travel and transportation has contributed to the rapid spread of communicable diseases (*3*), which are now prominent GPBs. Since the early 1970s, for example, 20 diseases have re-emerged or spread, often in more virulent or drug-resistant forms (*4*), and the appearance of the West Nile virus in the USA is a reminder that not all of these diseases are confined to the developing world. The AIDS pandemic in Africa also poses threats to world health beyond the continent itself and has significantly complicated global struggles against other diseases by contributing to the spread of opportunistic infections. The connection between AIDS and TB, for example, is well documented (*5*).

Besides their direct threat to global health, diseases such as HIV/AIDS, TB, and malaria have a disastrous impact on the development of the poorest countries, which adds a second GPB to such diseases. Between 1965 and 1990, for example, income per capita in countries with high malaria rates grew at only 0.4% annually, compared to an average rate of 2.3% for non-malarial countries; more than one-third of countries with intensive malaria (11 out of 29) had negative growth (*6, 7*). Communicable diseases cause about 60% of deaths and disability among the world's poorest fifth, compared to 8–10% among the richest fifth. When the burden of communicable disease alone is measured as the total number of deaths, the figures are 42% for developing countries versus 6% for industrialized countries (*8–10*).

If the current disease burden of sub-Saharan Africa and other poor countries is allowed to persist, it could have serious repercussions for economic globalization, international peace and security, and the prosperity and well-being of industrialized countries. Fortunately, the non-health risks posed by these diseases are increasingly recognized. At the US Centers for Disease Control and Prevention (CDC), for example, budgetary allocations for global health are justified on the grounds that they contain potential security threats from governments destabilized under crushing disease burdens or by bioterrorism (*11*).

Thus, communicable disease control clearly constitutes a GPG. Once achieved, it would benefit all people, in poorer and richer countries, present as well as future generations. Due to this mutual interest and the growing importance of communicable disease control as a GPG, health has moved to the top of the political agenda. There is too much at stake for all, including the richer countries, to let current disease trends go unchecked. Also, industrialized countries cannot provide the GPG, "communicable disease control", through policy measures of their own, and depend on the cooperation of developing countries. Since successful cooperation depends on a fair sharing of net benefits, global interdependence may lead to improved health equity.

Gro Harlem Brundtland, Director-General of WHO, has also stressed that a business-as-usual strategy is no longer an option (*12*). It would be wrong and shortsighted to consider improving health in poorer countries as merely an issue of aid, an option which richer segments of the population may or may not exercise. Instead, international coopera-

tion must be seen as an integral part of national health policies everywhere, rather than an isolated, sporadic endeavour. The porousness of borders has globalized our health conditions, and international cooperation in health has become a matter of self-interest and mutual concern.

Improving financing of global health initiatives

Preliminary estimates for controlling malaria, TB, and HIV/AIDS in Africa alone indicate it would require international cooperation costing US$ 7–10 billion annually (*13*). However, full funding for the new health initiatives is not yet assured. Committed funding typically comes from official development assistance (ODA), complemented by donations from private foundations and private-sector contributions. But it is still unclear where most of the resources will come from. The current ODA funds are about 0.2% of the gross national product of the industrialized countries, well below the internationally agreed-upon target of 0.7%. Considering the enormous, still-unresolved poverty agenda, and the continuing debt burden of many poor countries, it is questionable how the need for a further US$ 7–10 billion for health could be met within the current ODA envelope.

There is also a question of principle: to what extent is it even justified to charge the full cost of communicable disease control to the ODA account? Since disease control is a GPG and in the interest of all, it could be argued that costs should be partly borne by the national health sector budgets of industrialized countries, rather than by their aid budgets alone. This would not be unprecedented: most countries pay their contributions to the WHO regular budget out of the national health sector budget. Sector budgets are also used to pay contributions to the regular budget of other international organizations, such as those for agriculture or the environment; and the Departments of Health and Human Services, Housing and Urban Development, and Veteran Affairs all contribute resources to CDC. The United States Treasury Department also finances tax incentives to companies that undertake research on global diseases, or export pharmaceuticals to developing countries; and recently the United Kingdom Chancellor of the Exchequer introduced similar measures (*14*). The United States National Institutes of Health, together with the Departments of Agriculture, Labor, and Defense, have a combined fiscal year 2001 budget of US$ 178 million to spend on global AIDS alone (*15*). The time may therefore be right to regularly include expenditures for global health concerns in national sector budgets. This would open up a reliable funding source for addressing the interdependencies of globalization.

As a first step in this direction, it would be important to establish practical means and criteria for apportioning the costs of global health initiatives between aid and the national sector budgets of industrialized countries. An important lesson from incremental cost payments (*16*) is that it is often better not to define costs and reimbursements precisely, but instead use compensation and incentives that recognize extra efforts countries make in the interest of all. Recognizing that all have a shared interest in global health would not only strengthen international cooperation, it could also lead to additional funding and adequate financial backing. This would be a critical step towards regularizing special initiatives and making them more sustainable.

Providing health knowledge more efficiently

A lack of funding for research on diseases that disproportionately affect the developing world, the "10/90 gap" (*17*), is often at the root of current health problems. It is reflected in a need for medical products and pharmaceuticals, for example, many of which are too costly for the poor. Special health initiatives are presently designed with these problems in mind and provide aid for medicines and incentives for medical R&D that will benefit the poor (*18*).

To answer how emerging health crises could be detected earlier, and whether current responses are the most effective long-term policies, it is useful to start from an examination of the public/private properties of the good, "knowledge." Knowledge has significant private properties, because it is typically produced by individual researchers or research teams and can be withheld and made excludable. Moreover, the individual producers of knowledge need to be adequately rewarded for their efforts to ensure adequate investments and innovations in R&D projects (referred to as "dynamic efficiency" by economists). In the past decades, dynamic efficiency has been enhanced by improvements in the regime of intellectual property rights (IPRs) and compliance with it worldwide. The importance of "static efficiency" (the adequate provision of resources currently producible) also should not be overlooked. Static efficiency is often not in the best interest of monopoly producers, who may seek to limit production to maintain higher prices. Knowledge also has important public qualities, such as being non-rival in consumption (i.e. the marginal cost of sharing knowledge is zero or relatively modest (*19*)). Hence, it would be more efficient for policies to foster both dynamic and static efficiency for the health care economy. Some measures now being discussed to correct the health care imbalance include the selective use of compulsory licensing and parallel imports (*20*). Yet durable solutions for stimulating R&D for neglected diseases, such as purchase guarantees, are still lacking.

Although it is important to assess how efficiently knowledge is managed, it is a complex issue and current work by bodies such as the Global

Forum for Health Research should be reinforced. A global health R&D council should also be established, for example as an independent advisory body of WHO that also reports to the UN. The council could be authorized by the heads of WHO and the UN to address the UN General Assembly, as long as the present crises persist, or whenever there is risk of a new crisis. The council could also routinely report to the Economic and Social Council of the UN. Besides assessing trends in health-related R&D, the council could have funds to assist interactions between commercial, private, and social concerns. Other improvements could also be explored, such as further modifying the IPR regime and complementary public policy measures. Analyses by the council could be used by delegates from developing countries in international negotiations and would strengthen the advocacy of disease-specific issue managers.

Some philanthropic organizations, such as the Rockefeller Foundation, have a tradition of encouraging health innovations and fostering research for development. With some of the newer foundations, together they may be able to exercise leadership once again, in collaboration with concerned global actors.

New roles for international organizations

The political push for tackling communicable diseases has largely happened on a disease-by-disease basis, as exemplified by the programmes for the eradication of smallpox, poliomyelitis, and onchocerciasis and current special initiatives are no different. From a GPG perspective this is desirable and the trend should be reinforced, since it ensures that the good, "disease control," is produced. To deliver disease-specific public goods, adequate finances, information, and collaboration will need to be focused on the production of each disease-specific public good. It would be desirable, therefore, to appoint a special issue manager responsible for achieving the desired result for each major disease.

Clearly, each disease will require various inputs, including partnerships between private and public actors and stakeholders, as well as between international-level and national-level efforts. Indeed, disease control efforts will often follow a bottom-up production path, requiring main policy efforts to be at the country level (*15, 21, 22*). This poses the challenge of effectively managing the interface between national- and international-level policies and programmes. Moreover, it is now widely accepted that disease control is not just a health sector issue, but one that involves inputs from multiple sectors, from education to trade, knowledge management, and health. The issue manager would have responsibility for ensuring that all necessary links are encouraged, interfaces established, and partnerships developed.

Based on past efforts at international disease control, achieving programme goals may take time. It will have taken more than 25 years, for example, to complete the Onchocerciasis Programme (*23*), and it is probably unrealistic to consider shorter time-frames for newly launched initiatives. Disease-specific issue managers are one way of ensuring that disease issues do not lose policy attention, financial support and effectiveness over such long periods. Just as private goods benefit from ownership, public goods benefit from public participation in decision-making and delivery, and many issue managers will find "ready-made" partnerships to build on.

In large measure, public–private partnerships and international coalition-building have been responsible for attracting the attention of policy-makers and placing new health issues on the global agenda (*24, 25*). To accomplish targeted health-policy outcomes, the international community should therefore encourage organizations such as WHO to complement horizontal, health sector programmes with vertical multi-sector, multilevel initiatives. The two approaches are not in opposition to each other and a false choice between vertical and horizontal approaches should not threaten international cooperation for disease control, nor should disease control be promoted at the cost of health sector development or of focusing on non-communicable diseases. It is simply that the emerging global dynamic necessitates embracing an "aid + GPG" agenda.

Conclusions

An analysis of communicable disease control from a GPG perspective suggests that four policy reforms would place current initiatives for the control of malaria, TB, and HIV/AIDS on a more durable basis and allow us to be better prepared for the continuing challenge of health interdependencies in a world that is increasingly undergoing globalization. First, international cooperation for health should be viewed not just as an aid issue, but as a GPG concern that is in the interests of all, poor and rich. Second, national health and other sector budgets should be tapped to ensure full and reliable funding for global health concerns. Industrialized countries should begin this process. Third, a global research council should be established to foster more efficient management of health-related knowledge. Fourth, disease-specific issue managers should be appointed to facilitate necessary cross-border, cross-sector and multi-actor policy partnerships. Changes in these directions are already under way and they provide an important basis for building further policy reform.

The analysis suggests that notions of private and public must be reconsidered. In a globalizing world, the national (private) interest of countries is sometimes best served through international cooperation with others. And even though some goods are privately produced, it may be efficient to enable producers to keep the public interest in mind. The public interest would include not only the effective demands of the rich, but also the urgent needs of the

poor. The cost of failure is likely to far exceed the costs of such incentives.

In the past decades, economies and development have moved from being more state led to being more market oriented, and the international community has devoted considerable attention and energy to fostering privatization and economic liberalization. As a result, concern about public goods receded. Now, we are confronting the consequences of that neglect. Crises have become pervasive, not just in health, but also in areas such as finance and the environment. In addition, many public goods have gone from being national public goods to being GPGs. Bringing the notion of public goods back into today's policy debates will require some effort, but it will pay both for the public at large, and for governments and businesses. As recent debates have shown, merely upholding patent rights over people's rights to a decent life is no longer a feasible policy option. People today increasingly expect efficiency, equity, growth, and human development. ■

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Résumé

Biens publics mondiaux et santé : faire avancer le programme d'action

Nous avons examiné des initiatives récentes visant à combattre le VIH/SIDA, le paludisme et la tuberculose, et formulons quatre recommandations de politique générale pour en améliorer la viabilité. Tout d'abord, la coopération internationale en matière de santé devrait être envisagée comme une question touchant aux biens publics mondiaux et intéressant aussi bien les pays pauvres que les pays riches. Ensuite, il faudrait faire appel aux budgets nationaux de la santé et d'autres secteurs, en commençant par les pays industrialisés, pour assurer que les questions sanitaires d'importance mondiale bénéficieront d'un financement suffisant et sûr. Troisièmement, un conseil mondial de la recherche devrait être créé pour encourager une gestion plus efficace des connaissances dans le domaine de la santé. Enfin, on devrait nommer des responsables chargés des questions spécifiques aux diverses maladies afin de faciliter les partenariats. Des changements de politique dans ces divers domaines ont déjà eu lieu et pourraient servir de point de départ pour une réforme plus poussée.

Resumen

La salud como bien público mundial: impulsar el programa de acción

Se examinan las iniciativas sanitarias especiales lanzadas recientemente para luchar contra el VIH/SIDA, el paludismo y la tuberculosis, y se formulan cuatro recomendaciones para mejorar su sostenibilidad. En primer lugar, la cooperación internacional en materia de salud debe formar parte de la búsqueda de bienes públicos mundiales de interés tanto para los países pobres como para los países ricos. Segundo, hay que aprovechar los presupuestos nacionales, tanto el destinado a la salud como los de otros sectores, para asegurar una financiación suficiente y fiable de las respuestas a los problemas sanitarios mundiales; los países industrializados deben llevar aquí la iniciativa. Tercero, debe crearse un consejo mundial de investigación para promover una gestión más eficiente de los conocimientos médicos. Y, en cuarto lugar, deben designarse administradores que se ocupen de aspectos de enfermedades específicas, a fin de facilitar las alianzas en materia de políticas. En todas esas esferas se ha empezado a introducir ya cambios de política que pueden constituir la base de futuras reformas.

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