ORCHESTRATING COLLABORATION AMONG CONTENDING STATES:
THE WORLD HEALTH ORGANIZATION AND INFECTIOUS DISEASE
CONTROL IN SOUTHEAST ASIA

Chapter for Challenges to Sovereignty Project
The Pacific Basin Research Center

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Introduction

Infectious disease control poses a collective action problem for nation-states. No country acting individually can ensure the impermeability of its borders against microbes, which are unenlightened about territorial boundaries, immigrations and customs regulations, and the difference between North and South Koreans. Microbes travel effectively from country to country in the wind, inside the intestines of children, on vegetables, and in the various organs of cows. Only in concert do nation-states have a chance of controlling these miniscule agents of disease.

Because of this need for collective action nations cooperate to a remarkable degree, more than in almost any endeavor that requires joint action across countries. Sovereignty, understood as the right to proclaim the last word, no longer sits exclusively in the hands of individual nation-states. Governments defer, largely voluntarily, to the collective will of the community they form with their neighboring states, and to the World Health Organization, the international organization that most prominently represents and directs the community's infectious disease control activities. But the pooling of sovereignty must be constructed deliberately and painstakingly. In most instances government officials ultimately recognize that maintaining the health of their own populations depends on acting in concert with their neighbors, but they agree to such pooling only after much effort has been expended to persuade them of the need.

Why and how this pooling has been constructed, and what this implies for the nature of sovereignty, is the subject of this chapter. Three infectious diseases - polio,
malaria and tuberculosis - are considered. Each became a primary target of the World Health Organization's Southeast Asian Region (hereafter referred to as SEARO), composed of Bangladesh, Bhutan, India, Indonesia, the Maldives, Myanmar, Nepal, North Korea, Sri Lanka and Thailand.

The polio campaigns

No infectious disease control initiative involved the pooling of sovereignty more than that of polio. The national governments in SEARO voluntarily transferred power to a set of authoritative bodies that reside largely under the control of the World Health Organization. These bodies were created with the consent of these nation-states, but once created, they acquired a moral and medical authority that nation-states were reluctant to defy. Even North Korea, one of the most isolated and defiant nation-states in the world, is slowly accepting their authority.

The global polio eradication initiative

In 1988 a resolution of the 41st World Health Assembly, the World Health Organization's governing body of nation-states, called for a campaign to eradicate polio from the earth by the year 2000. Delegates cited this resolution as a gift from the twentieth to the twenty-first century (WHO, 1988, p. 161). Between 1988 and 2000, polio control efforts accelerated dramatically. In May 1989, the 42nd World Health Assembly endorsed a plan of action to operationalize the effort, asking, among other things, that countries ensure 80% polio immunization coverage in each district for infants under the age of one (WHO, 1989, pp. 273-274). Rotary International raised $230 million as of 1990 (Rotary International, 1990, p. 9) and $378 million by 2000 (WHO, 2000d) to support the campaign. In 1992 a revised global plan of action recognized that eradication would not be achieved in most countries through routine immunization, and
advocated supplementary immunization strategies including the use of national immunization days (NIDs) - massive and concentrated campaigns to vaccinate infants and children in short periods of time (WHO, 1993, p. 225). Eradication efforts accelerated in the mid-1990s. In 1995, 19 countries in the Middle East, the Caucasus and Central Asia held coordinated national polio immunization days (WHO, 1998b). China held NIDs in 1996 and the number of polio cases reported in the country declined from 5,000 in 1990 to 0 in 1997 (WHO, 1998b). By the end of the year of 1997 111 countries had held national immunization days and as of April 1998, all but four of the world’s polio-endemic countries had held NIDs (WHO, 1998a).

In 2000, WHO director-general Gro Harlem Brundtland announced a five-year strategic plan to ensure that the world would be certified as polio free by the year 2005 (WHO and UNICEF, 2000c and 2000d). Meanwhile, Rotary International maintained its financial commitment and private philanthropists joined the cause, with the Bill and Melinda Gates Foundation pledging $50 million and the R.E. (Ted) Turner United Nations Foundation an additional $28 million (WHO, 1999). The results of these efforts of the 1990s, a dramatic rise in global immunization rates and decline in polio cases reported, are recorded in figures 1 and 2.

**Figure 1: Global polio immunization rates**
Origins of the polio eradication initiative in the WHO's Southeast Asian region

When the commitment to eradication was announced in 1988, WHO SEARO officials embarked on a sustained political orchestration effort to push governments to back eradication with political, financial and human resources. SEARO officials brought together the ministers of health of the region as well as health secretaries and health ministry personnel. Most importantly, they created two region-wide technical bodies of senior medical officials - the technical consultative group and the regional committee to certify polio eradication - that effectively became the dominant voices of authority for any action concerning polio eradication in the SEARO member states. Regional WHO
officials, the region's pre-eminent experts in international medical policy, convinced member countries to follow their recommendations and those of the bodies they had created.

**The creation of the technical consultative group**

In 1994 WHO SEARO officials set up the technical consultative group (TCG), a body that evolved into the authoritative decision-making institution for polio eradication in the region. The regional director for SEARO appointed the members of the TCG, who came from countries inside and outside the region including the United States, Japan, Sri Lanka, Thailand, India and Indonesia. Each was a prominent medical authority or health official (WHO SEARO, 1996).

The group got to work quickly. Its first meeting was in Nonthanburi, Thailand in December 1994, soon after its establishment (WHO SEARO, 1996). From 1995 to 2000 it met formally on a frequent basis (in, among other places, New Delhi, Kathmandu, Bangkok, Dhaka, Lucknow and Calcutta). Dozens of health and donor officials from the region attended each meeting, including on several occasions health ministers and health secretaries of member countries, an indicator of the level of political priority that the states of the region ultimately came to place on the initiative (WHO SEARO 1996, 1997c, 1999, 2000b, 2000c). Primary financing of all the meetings came directly from the WHO's regional budget.ii

After each meeting the TCG issued a report, laying out a set of guidelines for forthcoming polio eradication efforts in the regions. These were much in line with the

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i It also became the authority for policies on other vaccine-preventable diseases, although through the 1990s it is clear that polio was its primary concern. Creating expert committees such as this one is a long-standing WHO practice, a strategy the organization has used to establish global and regional medical guidelines and to influence the health policies of member countries.

ii Personal interview, WHO SEARO official, March 27, 2001.
global strategy for polio eradication that emerged out of WHO headquarters in Geneva, but they were tailored to specific regional needs. At the second meeting in New Delhi, for instance, it asked for the following actions concerning NIDs, surveillance for cases of the disease and laboratory preparedness to identify such cases (WHO SEARO, 1996, pp. 3-6):

- WHO Global Programme for Vaccines and Immunization (GPV) and SEARO should accelerate the efforts to promote and facilitate the synchronization of NIDs among the countries within the Region and also among the Regions.

- The polio endemic countries should develop specific plans of action to build an AFP surveillance system capable of monitoring eradication progress and providing guidance for immunization actions.

- SEARO should organize a meeting of the polio laboratory virologists within the next six months, lasting for at least two days, to discuss in more detail the pending technical issues of laboratory surveillance.

In later meetings the TCG became even more specific and direct in its proclamations. For instance, at the 1999 Dhaka meeting it stated that (WHO SEARO, 1999, pp. 3-6):

- In order for India to achieve the goal of zero poliovirus, supplementary immunization activities will need to be appropriately accelerated. TCG recommends that India should conduct...four intensified nationwide immunization rounds during the period October 1999 to January 2000.

- TCG recommends that Nepal should conduct...two SNIDs [sub-national immunization days] in October and November 1999 in border districts in the Terai belt and Kathmandu Valley, synchronizing these with India's nationwide rounds.

- The decision to stop NIDs in an individual country (Sri Lanka and Thailand) should be done in consultation with TCG...

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iii AFP stands for acute flaccid paralysis. AFP surveillance became the predominant way of tracking for cases of polio and the presence of the poliovirus. National medical systems were to monitor for all new cases of children with paralysis in the legs. Stool samples were to be collected from these children, and these tested in WHO accredited laboratories for the presence of the wild poliovirus, one of multiple possible causes of such paralysis. AFP was the most salient visual manifestation of the disease, and thus the best way to track its presence. Also, the number of AFP cases became the primary measure of the quality of a country's surveillance system. The WHO expected that each country develop a non-polio AFP rate of at least one per 100,000 children aged under 15 years to ascertain that the national system was doing an effective job of surveying for the wild poliovirus.
A review of TCG proclamations from meeting to meeting, and subsequent action on the part of country health systems, reveals an astonishing degree of national-level compliance with TCG recommendations. For instance, in a concentrated period of time between 1994 and 1997, all ten of the countries in the region held national immunization days (table 1), and by 1999 each had held two or more except for the Maldives, whose last reported case of polio was in 1994 (WHO SEARO, 1999, p. 32).

Table 1: National immunization days (NIDs) in countries of WHO Southeast Asian region

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of first NID</th>
<th>Number of NIDs, 1994-1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1995</td>
<td>5</td>
</tr>
<tr>
<td>Bhutan</td>
<td>1995</td>
<td>4</td>
</tr>
<tr>
<td>India</td>
<td>1995</td>
<td>4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1995</td>
<td>3</td>
</tr>
<tr>
<td>Korea, DPR</td>
<td>1997</td>
<td>2</td>
</tr>
<tr>
<td>Maldives</td>
<td>1997</td>
<td>1</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1996</td>
<td>4</td>
</tr>
<tr>
<td>Nepal</td>
<td>1996</td>
<td>3</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1995</td>
<td>4</td>
</tr>
<tr>
<td>Thailand</td>
<td>1994</td>
<td>5</td>
</tr>
</tbody>
</table>


In December 1996 approximately 181 million children were immunized against polio in the same week in South Asia when, at the recommendation of the TCG, Bangladesh, Bhutan, India, Myanmar, Nepal, Pakistan and Thailand held national immunization days simultaneously in an effort to rid the region of the wild poliovirus (WHO, 1998b). For three years in a row, 1996 to 1998, NIDs were synchronized across half a dozen contiguous South and Southeast Asian countries (WHO SEARO, 1999, p. 2). In a single day in January 1997 India, in a TCG recommended NID, was able to immunize 127 million children (WHO, 1998b), after having immunized 117.4 million in a prior NID (WHO, 1997, p. 190). Based on subsequent TCG recommendations, India held further NIDs and SNIDs (sub-national immunization days) in 1999 and 2000 (WHO, 2000c). In 1998 the TCG proclaimed that India, Bangladesh and Nepal should be
considered a single epidemiological block and have synchronized NIDs and shared surveillance mechanisms. Subsequent action on the part of these governments reveals that they took this recommendation to heart. By 2000 it was possible for the WHO to produce a region-wide schedule of NIDs and SNIDs, one that coordinated activities across the ten different countries (fig. 3) (WHO SEARO, 2000b, p. 8).

Figure 3: Government responses: supplementary immunization day schedule for countries of WHO Southeast Asian region for 2000 and 2001 (reproduced from the seventh meeting of the WHO Southeast Asian regional technical consultative group held in Calcutta, India, 24-26 August 2000)

Generating such commitment for NIDs required direct WHO lobbying of top-level political leaders in the states of the region. For instance, in Indonesia in early 1994 Ministry of Health and donor agency officials approached the Minister of Health with a proposal for a national polio campaign.\(^iv\) The minister was not initially inclined to take up the idea, skeptical of the technical and medical possibility of eradicating polio from the country. His hesitance increased when, encouraged by donor officials, he raised the

\(^iv\) Information concerning the generation of priority in Indonesia, India and Bangladesh comes from multiple interviews with donor and health ministry officials in the respective countries.
matter with President Suharto himself, who responded vaguely. For several months in mid-1994, after this presidential approach, the minister showed little inclination to move forward on the project. The minister did attend several meetings, however, one of which involved the president, who this time expressed interest in such an effort. Thereafter, the minister overcame his hesitation and directed his staff to begin preparations in earnest for a campaign to begin in September 1995, which was held on schedule.

In India and Bangladesh WHO officials also worked through top-level political leaders - in these cases the prime ministers of the respective countries - and successfully generated their support for and involvement in NIDs. In India, concerned about continuing polio endemicity in northern Indian states, WHO officials and their domestic colleagues managed to engage Prime Minister Vajpayee for participation in the December 2000 NID. He recorded a radio and television address to the nation (written by WHO), appealed to government workers in the high-burden states to contribute to the initiative, and was photographed urging on workers for a publicity poster (Ministry of Health and Family Welfare, 2000).

Aside from national immunization days, there were several other critical components of polio eradication efforts, including the establishment of effective surveillance systems for cases of acute flaccid paralysis (see footnote iii above) and the creation of national laboratories to identify the presence of the wild poliovirus in the stool samples of children. The TCG exerted its scientific and moral authority in each of these areas, issuing guidelines, becoming the authoritative source of accreditation for the laboratories, and cajoling, criticizing and praising countries in the region in their acute flaccid paralysis surveillance efforts (WHO SEARO 1996, 1997c, 1999, 2000b, 2000c). A typical TCG proclamation comes from one of its meetings in 1999 (WHO SEARO, 1999, p. 6):

TCG is particularly concerned that the absence of accredited national laboratories in Bangladesh and DPR Korea may impede the ability of these countries to effectively target eradication resources. Until the national laboratories are accredited, immediate
action should be taken to split stool specimens and forward these to accredited laboratories…Progress will be reviewed at the mini session of TCG in September 1999.

And in a meeting in Calcutta one year later it proclaimed its frustration (WHO SEARO, 2000b, p. 6, italics added):

DPR Korea has not accepted the recommendation of the sixth TCG that stool specimens should be tested in parallel with the Regional Reference Laboratory in Beijing, China. *It remains the only country in the world not served by an accredited laboratory.*

The languishing pace of North Korea notwithstanding, by November 1999 the WHO had accredited fourteen of seventeen regional laboratories (WHO, 2000c), and the network was functioning as an effective mechanism for identification of wild poliovirus across this extensive and heavily populated region.

**WHO organization of cross-border polio eradication initiatives**

Polio incidence has been particularly acute in border regions, where many populations escape the reach of national health systems. The WHO and TCG therefore devoted special attention to eradicating the virus in these areas. To deal with cross-border transmission of the virus via migrating populations the WHO arranged bilateral and multilateral meetings involving Afghanistan, Bangladesh, China, India, Iran, Laos, Myanmar, Nepal and Pakistan (WHO, 2000c; WHO SEARO 2000a; WHO SEARO 2001b; WHO and UNICEF, 2000a; WHO SEARO 2000b).

Collaboration between Bangladesh and Myanmar surmounted a long history of tension involving border and refugee issues. Four cases found in Myanmar in 1999 were suspected to have originated in Bangladesh, as the genetic strains of the poliovirus resembled those found previously there rather than in Myanmar (WHO SEARO, 2001b). WHO efforts to generate meetings between the two countries were initially derailed, but after some effort WHO representatives convinced officials from both countries to meet to deal with the poliovirus.  

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The first meeting took place in June 2000 in Yangon. The Minister of Health of Myanmar opened the meeting, which was jointly chaired by Myanmar's deputy minister of health and Bangladesh's joint secretary for health. During the meeting three working groups were convened on policy coordination, surveillance and immunization. The two countries put forth a series of recommendations, including plans for a second meeting (which occurred in March of 2001), followed by the creation of central coordinating bodies in each country for cross-border poliovirus transmission issues, the creation of local bodies in border areas for the same problem, the sharing of information on surveillance and immunization activities in border areas and a request to immigration authorities for temporary passes during NIDs.

**The dominant role of the WHO in setting polio policy**

Between 1988 and 2001 the World Health Organization's Regional Office for Southeast Asia and the expert bodies it created became the pre-eminent polio authorities for the region. Political and health officials from the ten member countries, largely voluntarily, pooled their decision-making on major issues concerning polio eradication, and handed over the last word to the WHO and its expert bodies. In doing so, the WHO gained a remarkable measure of authority, including the power to tell the one billion strong nation-state of India when to mobilize its political system in order to bring tens of millions of infants and children to vaccination posts. As a result of this pooling of decision-making, activities were coordinated in the region to an extremely high degree, and this disease, which has crippled children since the beginning of human history, is within the next two years likely to vanish from the region in perpetuity.
The malaria campaigns

Governments of Southeast Asia also pooled decision-making for malaria strategies, sustaining locally tailored control tactics, while gradually transferring power to the WHO and other international organizations. The governments of the region take little independent initiative in seeking to collaborate with their neighbors, even though all except Sri Lanka and the Maldives have faced cross-border transmission issues. It has been the WHO that has taken this leadership. It has convened a series of regional meetings on the disease, brought together country teams working in isolation in order to generate collaboration in fighting malaria transmission across borders, and, in alliance with other international organizations, moved malaria to the top of the global and Southeast Asian disease control agenda.

The creation of a Southeast Asian-wide community of malaria experts

The 1970s and 1980s were eras of low priority for malaria both globally and in the region, as enthusiasm from the 1950s and 1960s over DDT died down and countries shifted from eradication to control and containment as malaria goals. This waning of priority was reflected in the operations of WHO SEARO itself, as it convened few meetings in the region devoted to the disease during these decades. In the 1990s, however, malaria again rose on to the global disease agenda, in part because African nations managed to make donors and advanced industrial countries aware that the disease was an enormous economic burden and one of the most serious health threats on the continent. In October 1992 the WHO organized a meeting of ministers of health from around the world in Amsterdam, at which time participants ratified a global malaria control strategy. This new global wave of priority also spurred on the countries of South and Southeast Asia, the other malaria-endemic region of the world. SEARO convened an inter-regional meeting in New Delhi in 1992, where member states from throughout
South and Southeast Asia, East Asia and the Pacific declared their priority for fighting the disease (WHO SEARO, 1997a). Through these and other meetings, malaria experts and other health officials were able to share country strategies, exchange ideas, and hear of WHO global initiatives and technical recommendations. In the 1990s SEARO arranged a series of multi-country gatherings among contiguous nation-states that faced malaria border transmission problems. In 1997 the WHO SEARO office also produced an official document on management of the outbreak of malaria, asking for strict reporting procedures to be used in border districts in Bangladesh, Bhutan, India, Myanmar, Nepal and Thailand (WHO SEARO, 1997b).

In May 1998 a new global initiative for fighting malaria emerged under the name "Roll Back Malaria" (RBM). Its initiators announced a goal of reducing malaria-related mortality by half by the year 2010 (WHO 2000a). RBM's roots lay in the growing attention to fight the disease in the 1990s, but it represented a qualitatively different level of priority, as it involved a transnational alliance of donors and national governments, a multi-sectoral approach and a significant commitment of funds to fight the disease. Multiple donors and international organizations backed the campaign, including the World Bank, the United Nations Development Programme and UNICEF. However, the lynchpin was the World Health Organization, and in particular its newly appointed Director-General, former Norwegian Prime Minister Gro Harlem Brundtland, who had injected a new sense of energy into the organization and re-focused the WHO on a core set of priorities, one of which was malaria.

WHO SEARO officials still faced major challenges in operationalizing this global commitment through meaningful action by nation-states. The countries in the region shared a wide array of malaria problems, including cross-border transmission, forest-related malaria, the increasing prevalence of the drug-resistant *P. falciparum* vector, high prevalence among ethnic minorities and hill tribes, and rising disease incidence due to migration in and out of their countries into neighboring states. By January 2000 the
WHO and UNICEF had convinced the governments of Thailand, Myanmar, Cambodia, Laos, Vietnam and China to participate in a joint project to roll back malaria in the Mekong delta. The plan was backed by each country's existing malaria control resources and those of its donors, and US$10,193,300 of UNICEF and WHO funds (WHO and UNICEF, 2000b).

WHO played a major role in orchestrating cross-national collaboration in malaria control efforts and in creating venues for the future pooling of decision-making. It convened dozens of meetings in the region, creating a community of malariologists who otherwise would likely have worked in their home countries in isolation. It promoted malaria as a priority among health ministers at annual meetings. It was responsible for creating and coordinating a global roll-back malaria campaign that brought together donors and national governments to fight the disease and to commit meaningful resources to the cause. National health leaders are increasingly looking to one another, to the multilateral roll-back malaria campaign, and to the World Health Organization for guidance on major malaria policy action.

The tuberculosis campaigns

The dynamics of tuberculosis policy in the SEARO region resemble those for malaria more than they do those for polio. A diversity of approaches exist in the region, countries work individually in fighting the disease, and governments pay attention to cross-border transmission issues only when pushed. At the same time, there is evidence of increasing convergence in control strategies and of cross-national unity and deference to the WHO. This convergence is reflected most starkly in the slow but steady acceptance and adoption of a single, WHO-endorsed regimen to fight tuberculosis:

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vi The European Commission has also been heavily involved in Mekong malaria control efforts.
directly observed treatment, short course, or DOTS. The convergence is facilitated by the fact that the World Bank, the largest donor financier of tuberculosis control in the region, has made fighting the disease a global priority, and backs DOTS. The essence of DOTS is an antibiotic treatment, combined with direct observation by medical personnel of pill intake by patients. A danger of tuberculosis is that medication makes patients feel better long before they are cured, and they are therefore prone to stop pill intake. Yet if they stop too early the disease re-emerges, often with drug-resistant strains. Direct observation is needed to ensure that patients complete the treatment in full.

A nexus of factors brought about a sudden resurgence of attention to the disease in the 1990s, including the AIDS crisis that led to a marked increase in the number of persons afflicted with tuberculosis. AIDS patients are highly vulnerable to the disease due to weak immune systems, and tuberculosis has become the number one killer of individuals with AIDS. The countries of Asia and SEARO became the focal points of renewed TB control efforts. Of the 22 high-burden countries identified by the World Health Organization, 11 were in Asia, including all of the top four: India (1st), Indonesia (3rd) and Bangladesh (4th) of SEARO, and China (2nd). In 1998 there were an estimated 4,138,000 people with TB in these four countries, or 51% of the global total. Thailand (16th) and Myanmar (17th) in SEARO also were on the high-burden list (WHO, 2000b, p. 10).

The World Bank acknowledged WHO's medical authority and promoted DOTS as the treatment of choice, conditioning the approval of TB loans on acceptance of the strategy. SEARO and WHO country officers organized a series of meetings for national health officials involved in tuberculosis control, in addition to pushing the cause at annual health minister and health secretary meetings.

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vii The WHO also includes political commitment, regular drug supply, sputum smear microscopy and reporting systems as components of DOTS, but antibiotics and individual monitoring are the main treatment elements (WHO SEARO, 2001a).
WHO was successful in promoting DOTS in the region. By 1998 119 countries formally had adopted the DOTS strategy, including all 22 of the high-burden countries (WHO 2000b, p. 1), and all ten of the SEARO countries. Each SEARO member embarked on a pilot project to refine and promote DOTS implementation (WHO SEARO, 1998, p. iv). Bangladesh was particularly successful in TB control, in part due to the central role that the non-governmental organization BRAC had played in the past in reaching villagers using a DOTS strategy (Mustaque, 1997). In 1995 less than half of the Bangladeshi population was covered by DOTS services (WHO 2000b, p. 14); by 2000 that figure had risen to approximately 95% (see table 2). Among SEARO’s high-burden countries, Thailand and Indonesia also made progress through the 1990s as the percentage of their populations covered by DOTS rose from below 10 percent in the mid-1990s to 65 and 80 percent, respectively, by 2000 (WHO 2000b, p. 14; see also table 2). Also, at 72 percent in 1997 for the region (table 2), the cure rate for those undergoing DOTS was approaching the global goal, and was far higher than that for other tuberculosis treatment methods (WHO 2000b, pp. 140-141).

The size, sociopolitical complexities and diversity of India, a country that had been a pioneer in tuberculosis research and that had the greatest number of tuberculosis cases, meant that DOTS spread there only slowly. By 2000 (table 2), only one-quarter of the population had access to DOTS treatment. Regionally only 28.9% of sputum-smear positive cases were being detected, well below the global goal of 70%. Globally by 1998 only Peru and Vietnam, among the 22 high-burden countries, had managed to achieve the hoped for targets of 70% sputum-smear positive case detection and 85% cure rate (WHO 2000b, p. 3).

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viii The World Bank in 1997 approved financing to assist the Indian government in expanding DOTS across the country, so we may expect a rise in DOTS availability over the next five years.
Table 2: Tuberculosis control outcome indicators in SEARO member states

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent of population with access to DOTS treatment</th>
<th>Percent of TB cases being detected</th>
<th>Percent of population that receive DOTS treatment who are cured of the disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>95</td>
<td>27.5</td>
<td>78.4</td>
</tr>
<tr>
<td>Bhutan</td>
<td>100</td>
<td>21.2</td>
<td>84.5</td>
</tr>
<tr>
<td>India</td>
<td>25</td>
<td>34.7</td>
<td>81.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>80</td>
<td>12.2</td>
<td>54.5</td>
</tr>
<tr>
<td>Korea, DPR</td>
<td>30</td>
<td>2.2</td>
<td>Data not available</td>
</tr>
<tr>
<td>Maldives</td>
<td>100</td>
<td>82.2</td>
<td>94.7</td>
</tr>
<tr>
<td>Myanmar</td>
<td>65</td>
<td>27.7</td>
<td>81.8</td>
</tr>
<tr>
<td>Nepal</td>
<td>75</td>
<td>51.5</td>
<td>86.8</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>95</td>
<td>74.7</td>
<td>76.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>65</td>
<td>21.3</td>
<td>62.1</td>
</tr>
<tr>
<td>Regional</td>
<td>40</td>
<td>28.9</td>
<td>72.0</td>
</tr>
</tbody>
</table>


For year 1998 for sputum-smear positive patients. Source: WHO 2000b, p. 138

For year 1997: Source: WHO 2000b, p. 140

By 2000, the pooling of decision-making in tuberculosis control policy had not proceeded as far as it had for polio. But pushed by an alliance of international organizations and national governments, tuberculosis was at the top of the global disease agenda. Since 1989 alone the World Bank had lent $350 million for tuberculosis control (World Bank, 2001). By 2000 almost every country had accepted, at the level of official policy, the WHO-promoted DOTS as the legitimate practice. In 2000 most countries accepted the World Health Organization's 70% case detection/85% treatment success formula as the over-arching objective of their tuberculosis programs. Initiative by international organizations resulted in a community of nation-states holding similar goals, advocating similar practices and deferring to experts in these organizations on tuberculosis policy priorities, standards and tactics. These experts did not usurp domestic power, but they had gained so much authority to influence national tuberculosis practices that they in essence became partial owners of the last word.
Conclusion

Sovereignty is not static, nor always in the hands of one institutional actor. It evolves, may be held jointly and may change without generating significant conflict. The dynamic of change is not always challenge and response. At times it may be better characterized as evolution into pooling.

These cases of infectious disease control raise the issue of the circumstances under which sovereignty is likely to become pooled and decision-making deferred to an international organization. While it is not possible to generalize from a study of only three examples in the same policy sector, it is possible to put forth some observations about the nature of the cases and to draw some tentative propositions. Infectious disease control has the following features: it requires collective action; it has an international organization with global presence explicitly assigned to it; it is an undertaking that involves knowledge uncertainty and technical complexity; and it appeals to humanitarian impulses. With this in mind, the following tentative propositions may be offered:

(1) The pooling of sovereignty is more likely to occur if nation-states have no hope of surmounting the issue at hand unless they collaborate. Sovereignty pooling is undertaken, above all else, to solve collective action problems.

(2) The pooling of sovereignty is more likely to occur in policy sectors where well-established international organizations with mandates to address problems in those sectors already exist. Of course this begs the question under what circumstances such organizations will emerge. This is a complex issue, but it is nevertheless worth making the simple point that if an institution and set of mechanisms already exists to tackle an issue, the issue is more likely to be tackled.

(3) The pooling of sovereignty is more likely to emerge for issues that involve knowledge uncertainty and technical complexity. If knowledge surrounding an issue is already well-established and the technology widely disseminated and understood, governments have less need to rely upon external assistance and cross-national collaboration to tackle the issue.

(4) The pooling of sovereignty is more likely to occur if the issue appeals to a humanitarian impulse. Humanitarian causes, especially those
involving children, are the ones most likely to lead governments to move beyond parochial interests and to join with fellow nation-states to achieve global ends. Helping children pulls heart-strings and generates social, national and global momentum of its own accord.\textsuperscript{ix}

The emphasis on collaboration is not meant to ignore the multiple examples of states and international organizations fighting over infectious disease priorities, strategies and financing. For instance, North Korea has been reluctant and at times recalcitrant in the face of demands by its SEARO partners to conform to global disease control practices. India, a pioneer in tuberculosis research, due to reasons of national sensitivity was for a long time unwilling to apply the globally-accepted label DOTS to its treatment practices, even though it accepted DOTS as a strategy. Moreover, conflict exists among the international organizations themselves. The World Health Organization and the World Bank, while both supportive of DOTS, are currently embroiled in a disagreement over appropriate strategy for India.\textsuperscript{x} The WHO, with allies among national officials in the health sector, favors the top-down strategy that concentrates implementation authority in the central government, while the World Bank, with supporters elsewhere in the Indian bureaucracy, is doubtful that the managerial expertise to carry out such a massive program exists at this level. It favors a decentralization strategy that will hand over considerable responsibility to the various state governments.

Even so, the emphasis on collaboration rather than conflict is appropriate in this arena, since it is the remarkable degree of cooperation that has evolved among the region’s states, rather than the inevitable disagreements, that has been the most salient feature of infectious disease control initiatives. Infectious disease control is unusual among policy sectors in this respect, and for several reasons cooperation is likely to

\textsuperscript{ix} One of the most interesting elements in the case of polio in other WHO regions is that on multiple occasions combatants in civil wars agreed to temporary cease-fires in order to allow vaccinators to reach children in war-torn areas, a stark example of the power of a humanitarian impulse.

\textsuperscript{x} Personal interviews with donor officials, March 2001.
continue. First, through these and past global initiatives transnational epistemic communities of health experts have now formed (Haas 1992), and these knowledge-based authorities are available and ready to participate in future campaigns. Second, success breeds success. Polio workers were inspired by the successful campaign to eradicate smallpox from the earth, and future disease workers will be inspired by the polio campaign. The idea that eradication is possible for some diseases (and containment possible for many others) is now centrally in the global health discourse. Third, trends indicate that the influence on domestic policy-making of the two major international organizations involved in health - the World Bank and the World Health Organization - is growing, not waning. The World Bank in particular has become a dominant force in health policy-making over the last two decades, ever since in 1980 it decided to make lending in this sector a priority. xi In 1980 it lent only US$500 million for health, nutrition and population projects; by 1996 that figure had risen to US$2.4 billion (Buse and Gwin 1998). Moreover, the World Bank has become a dominant force in the reform of health sectors. The World Health Organization, the target of extensive criticism in the 1990s for outmoded health sector strategies, a top-heavy bureaucracy and inattention to cost-efficiencies (see for instance Godlee 1994a and 1994b) has a renewed vitality under the leadership of Gro Harlem Brundtland. In any case, regardless of past criticisms, the WHO never lost its true source of influence on global health policy: its subtle knowledge-
based authority to set health priorities and strategies, despite being a financially resource-
poor organization.

A fourth reason convergence is likely to continue is that globalization, in the form of the transnational flow of goods, peoples and foodstuffs, is accelerating, and with it the cross-border flow of microbes. The collective action problem, and the consequent need for nation-states to cooperate, will persist. Fifth and finally, national political leaders rapidly are becoming socialized into norms of global health cooperation. These include not just health ministers, but also ministers of foreign affairs, finance and home affairs, and even heads of states. These leaders gather with increasing frequency at global forums organized by the WHO, the World Bank and other international organizations. In 2000 alone, for instance there was a tuberculosis summit in the Netherlands and a malaria summit in Nigeria that brought together dozens of ministers and heads-of-state. Most recently, in April 2001 the largest AIDS forum ever held on the African continent was convened, where 50 heads of state, the UN secretary-general and former U.S. President Clinton pledged to step up the fight against this disease.

The transformation of global norms through the work of international organizations underpins the phenomenon of sovereignty pooling in infectious disease control. A number of scholars have analyzed these norm-transforming functions of international organizations inside the global system of nation-states (Meyer et al., 1979; Meyer et al., 1997; Finnemore, 1996; Abbott and Snidal, 1998). Abbott and Snidal have argued that (italics added):

States consciously use [international organizations]…to create information, ideas, norms and expectations…These functions constitute [international organizations] as agents, which, in turn, influence the interests, intersubjective understandings, and environments of states.

States are the creators of international organizations, but these organizations in turn acquire their own authority and power, reshaping the norms of the states that created them. The WHO, an international organization founded by the community of nation-
states for health promotion, acquired sufficient independence and autonomy to reshape
global health norms, and sufficient moral authority to convince states to share their
sovereignty in the interest of disease control.
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