

- 27 Ranchor AV, Bouma J, Sanderman R. *Sociaal-economische status en het myocardinfarct*. Groningen: Vakgroep Gezondheidswetenschappen, 1993.
- 28 Schalk van der Weide Y, Kalsbeek H, Truin GJ. *Sociaal-economische status, mondgezondheid en mondhygiënisch gedrag*. Leiden: Nederlands Instituut voor Praeventieve Gezondheidszorg TNO, 1993.
- 29 Hodiament PPG, Peer GPM, Sijben AES. *Demografische aspecten van psychiatrische problematiek in de gezondheidsregio Nijmegen*. In: Hodiament PPG. *Het zoeken naar zieke zielen*. Nijmegen: Instituut Sociale Geneeskunde, 1986.
- 30 Bloemhoff A, de Winter CR. *De invloed van sociaal-economische status op arbeidsonge schiktheid; een longitudinale analyse*. Leiden: Nederlands Instituut voor Praeventieve Gezondheidszorg, 1990.
- 31 Boshuizen HC, van de Water HPA, Perenboom RM. Sociaal-economische verschillen in de gezonde levensverwachting. *Tijdschr Soc Gezondheid* 1994;72:122-7.
- 32 Kunst AE, Geurts J, van den Berg J. *International variation in socio-economic inequalities in self-reported health*. 's-Gravenhage: SDU-uitgeverij/CBS-publicaties, 1992.
- 33 Kunst AE, Mackenbach JP. International variation in the size of mortality differences associated with occupational status. *Int J Epidemiol* 1994;23:742-50.
- 34 Kunst AE, Mackenbach JP. The size of mortality differences associated with educational level in nine industrialized countries. *Am J Public Health* 1994;84:932-7.
- 35 Perenboom RJM, van der Wulp CCG, Davidge W. *Griepvaccinatie in Nederland*. Mndber Gezondheid 1993;7:5-12.
- 36 Hoeymans N, Smit HA, Verkleij H, Kromhout D. *Sociaal-economische status, levensstijl-factoren, biologische risikofactoren en hart- en vaatziekten*. Bilthoven: RIVM, 1993.
- 37 Ranchor AV, Sanderman R, Heuvel WJA van den. An integrative approach to inequality in health: a longitudinal study encompassing SES, lifestyle, personality and health. In: Mackenbach JP (red.). *Sociaal-economische gezondheidsverschillen onderzocht, deel II*. Rijswijk: Ministerie van WVC, 1990. (Reeks Sociaal-economische gezondheidsverschillen No 7.)
- 38 Joosten J, Drop MJ, Mullink JPM. *Mechanismen van Sociaal-Economische Gezondheidsverschillen*. Maastricht: Rijksuniversiteit Limburg, 1992.
- 39 Schröer CAP, Bullinga R. *Gezondheidsverschillen tussen sociaal-economische statusgroepen. Effecten van verschillen in leefwijze of arbeidsbelasting?* Maastricht: vakgroep Medische Sociologie, Rijksuniversiteit Limburg, 1990.
- 40 Rose G, Marmot MG. Social class and coronary heart disease. *Br Heart J* 1981;18:663-8.
- 41 Mackenbach JP, van de Mheen H, Stronks K. A prospective cohort study investigating the explanation of socio-economic inequalities in health in the Netherlands. *Soc Sci Med* 1994;38:299-308.
- 42 Wetenschappelijke Raad voor het Regeringsbeleid. *Sociaal-economische gezondheidsverschillen en beleid: preadviezen*. 's-Gravenhage: SDU uitgeverij, 1991. (Voorstudies en achtergronden V72.)
- 43 Wadsworth MEJ. Serious illness in childhood and its association with later-life achievement. In: Wilkinson RG, ed. *Class and health, research and longitudinal data*. London: Tavistock, 1986.

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The World Health Organisation

WHO in retreat: is it losing its influence?

Fiona Godlee



This is the second in a series examining the role of the World Health Organisation, its current problems, and its future prospects

WHO says it has three main functions: to set normative standards; to provide technical advice and assistance on medical matters; and to advocate changes in health policy. During its 46 year history the first two functions have been a constant and uncontroversial backbone through which WHO has earned its reputation for scientific excellence. The third function, advocacy, came to the fore with the launch of Health for All in 1977, after which WHO took a key role in influencing international health policy. WHO's friends and critics alike now say that the organisation is losing its influence and retreating into its technical and biomedical shell. This article maps the changes in WHO's approach over the past 46 years and considers whether fears about its loss of influence are justified.

WHO's first 25 years were, as Dr Gill Walt of the London School of Hygiene and Tropical Medicine describes, characterised by caution and stability.¹ Between 1948 and 1973 the organisation had only two directors general, and its technical role as a specialist agency for health spared it the political conflicts that were wracking the rest of the United Nations. Dominated by doctors, WHO took an approach to health that was largely disease oriented, and it studiously avoided political or cultural controversy. In 1952 it decided not to undertake a population programme because of the religious and political implications. Fifteen years later, when concern over population growth was heightening, WHO softened this decision, saying that it would give technical advice on family planning but only on request from member states.

From technical consensus to political controversy

WHO's policy of sticking to uncontroversial medical matters was reaffirmed in the late 1960s. By this time the organisation's membership had nearly doubled as the newly independent states joined the United Nations. This rapid growth in membership broadened the organisation's agenda, says Walt, bringing more emphasis on the problems of the developing world and making decisions more political and less predictable.

It also introduced new potential for confrontation. Because member states have equal voting rights on WHO's governing body, the World Health Assembly, regardless of their financial contribution, the growth in membership from the developing world wrested control from the industrialised countries. By the late 1960s, Latin American, Asian, and African states could, if they acted together, achieve more than the two thirds majority required for decisions at the assembly.² By maintaining a broad consensus over technical medical matters, WHO diffused the potential conflict.

Further justification of its policy came, says Walt, when WHO burnt its fingers after a tentative sally into the politics of health care. A small group of WHO consultants published a report on "medical aspects of social security," which came down against health insurance. The United States, WHO's major donor, protested strongly against the organisation's involvement in what it saw as a political rather than a medical matter.

WHO's avoidance of health politics was made easier by its confidence in the disease oriented approach. Developments in medical technology—drugs, pesticides, and vaccines—brought a sense of optimism and purpose and strengthened the technical consensus within the organisation.

By the mid-1970s, however, it became clear that things weren't so easy. WHO's malaria eradication programme was running into difficulty because of DDT resistance and the lack of health infrastructure in developing countries. Setting up case detection and treatment programmes was proving almost impossible. WHO realised that technology alone was not enough; it would need to help countries build up basic health care systems. Under its new director general, Dr Halfden Mahler, WHO began a major shift away from its strict disease orientation to a broader focus on the socio-economic causes of illness.

In 1977, buoyed up by the successful eradication of smallpox, the organisation set itself an extraordinarily ambitious target linked to a new, functional definition of health. It announced that, by the turn of the century, all citizens of the world should have achieved "a level of health that will permit them to lead a socially

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When Dr Halfden Mahler directed WHO it was an advocate on health policy and spoke out against the vested interests of its major donors

and economically productive life: health for all by the year 2000.”³ The following year, at a conference in Alma-Ata in the Soviet Union, WHO announced that primary health care would be the means by which the world would achieve health for all.⁴

Dr Mahler is described as a visionary, a charismatic leader—“almost like a priest,” said Dr Miroslaw Wysocki, head of health information at the WHO’s South East Asia Regional Office. “Health for all was an impossible concept, but he said it and everyone believed him.” The concept was in tune with the times, espousing equity and social justice, and it marked a new policy direction for WHO, leading the organisation out of the quiet waters of technological consensus into the much more troubled seas of political controversy. As Walt describes, the new direction brought several head on confrontations with multinational companies and their main sponsor, the United States.¹

Into battle with the multinationals and America

The first of these confrontations took place in the late 1970s. International pressure was growing to stop the marketing of breast milk substitutes in the developing world. At a joint meeting WHO and Unicef drafted an international code on breast milk substitutes,⁵ which was passed at the World Health Assembly in 1981 by 118 votes to one. The United States, the only country to oppose the code, did so on the grounds that WHO was interfering in global trade. At that time Nestlé, a multinational company with large holdings in America, controlled a third of the world market in breast milk substitutes, amounting to \$3.3bn.

A second major confrontation followed the launch of the WHO’s essential drugs programme in 1977. WHO’s aim was to encourage more rational drug policies based on short lists of essential drugs, and to encourage countries to develop their own capacities to produce the drugs they needed. The pharmaceutical industry was strongly against the initiative; and in 1985, partly in protest at the essential drugs pro-

gramme, the United States withheld its contributions to WHO’s regular budget. At that time the United States was home to 11 of the world’s 18 largest drug companies.

Suddenly WHO was out of the quiet shelter of technical consensus and firmly inside the political arena, being aggressively lobbied by industry on the one hand and pressure groups on the other. Despite America’s financial clout, WHO steered a middle course, and there is general agreement, says Walt, that Dr Mahler dealt with the intense lobbying from both sides with skill and courage. In 1983 he indicated his personal commitment to advocating the essential drugs concept by bringing the action programme on essential drugs directly into his own office.⁶ Under his leadership the World Health Assembly upheld what are now seen as two important stands against powerful vested interests.

Fears of retreat

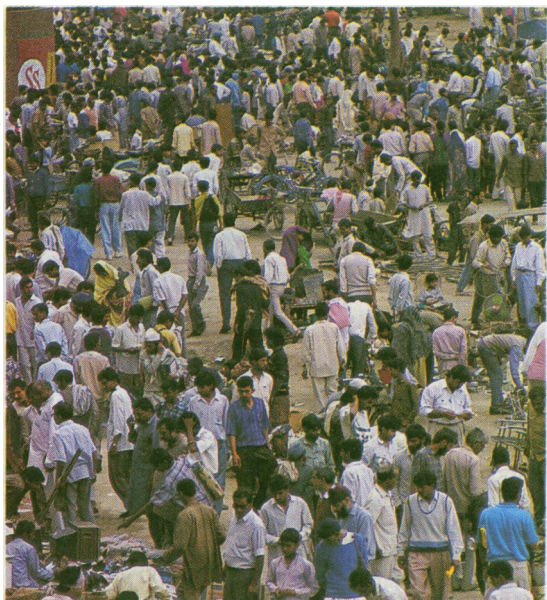
When Dr Hiroshi Nakajima took over as director general in 1988, fears were expressed that he lacked the leadership and vision for such battles. As director of the Western Pacific region he had been responsible for successfully rehabilitating WHO’s programme in Vietnam after the liberation of Saigon and for taking WHO into China ahead of all other UN agencies. But he was known to prefer compromise to conflict, and observers feared that as director general he would retreat with WHO out of international controversy and back into the safer waters of medical technological consensus.⁷

These fears seem to have been justified. During Dr Mahler’s last year in office, Unicef was promoting the so called Bamako initiative. Its aim was to boost spending on health in sub-Saharan Africa, crippled by debt and paralysed by the demands of the World Bank’s structural adjustment programmes. The initiative proposed that drug companies should recover their costs by selling drugs at marked up prices to those people and countries who could afford to pay (while



Under Dr Hiroshi Nakajima WHO has retreated into medical technological consensus

WHO's early reluctance to get involved in population control persists today



exempting those who could not) and putting the extra money raised in this way towards meeting basic needs and paying for health care workers' salaries. Dr Mahler and others were strongly against the idea, warning that linking salaries to the amount of drugs prescribed would encourage overprescribing.⁸ When Dr Nakajima took over from Dr Mahler he did not take over the fight. One of his first acts on becoming director general was to move the action programme on essential drugs out of his office and into its own division.⁹ Subsequent developments have confirmed early concerns about the Bamako initiative.⁹ Observers say that, had Dr Mahler stayed in post, the initiative would never have proceeded in its present form.

Dr Nakajima's response to the Bamako initiative reflects his style of leadership. Observers say that he is a compromise operator. His purpose is to keep major interest groups happy wherever possible. Loyal staff insist that Dr Nakajima is an effective advocate for health, and regular press releases from the Geneva headquarters report his pronouncements on a wide range of health issues. Recently, according to an aide, he publicly attacked the multinational drug companies for cynically pulling out of research into AIDS prevention because drugs to treat AIDS were more profitable. I spoke to one of the world's major producers of antiviral agents. It knew nothing of the attack.

Important battles remain to be fought on behalf of the world's health—for example, to control population growth and reduce tobacco consumption. But there is little sign that WHO is responding to the challenge. WHO's early reluctance to get involved in population control persists today. Its current contribution is limited to two programmes: the first, a pure research programme on human reproduction, funds research on infertility as well as contraception; the second, a programme on maternal and child health, encompasses family planning but has no advocacy role. Observers say that WHO made little impact at the recent United Nations conference on population in Cairo. WHO maintains that its hands are tied by member states who resist attempts to make population control a health issue. Perhaps now that US President Bill Clinton has lifted the ban on America funding programmes that advocate abortion, WHO will be prompted to take bolder steps.

There is nothing bold, however, in WHO's approach to the tobacco industry. Its antismoking activities mainly centre on World No Smoking Day. Stickers celebrating this initiative are prominently

History of international cooperation in public health

- 1830 Cholera overruns Europe
- 1851 First international sanitary conference in Paris fails to produce an international sanitary convention
- 1892 International sanitary convention on cholera is adopted
- 1897 International convention on prevention of plague is adopted
- 1902 International Sanitary Bureau is set up in Washington, DC, the forerunner of today's Pan American Health Organisation, which serves as WHO's regional office for the Americas
- 1907 L'Office International d'Hygiène Publique (OIHP) is established in Paris, with a permanent secretariat and a permanent committee of senior public health officials of member governments
- 1919 League of Nations is created, charged among other tasks with taking steps in matters of international concern for the prevention and control of disease. The Health Organisation of the League of Nations is set up in Geneva, in parallel with OIHP
- 1926 International sanitary convention revised to include smallpox and typhus
- 1938 Last international sanitary convention held in Paris. Conseil Sanitaire Maritime et Quarantenaire in Alexandria (forerunner of WHO regional office for the Eastern Mediterranean) is handed over to Egypt
- 1945 United Nations conference on international organisation in San Francisco decides to establish a new, autonomous international health organisation
- 1946 International health conference in New York approves the constitution of the World Health Organisation
- 1947 WHO interim commission organises assistance to combat cholera epidemic in Egypt
- 1948 WHO constitution comes into force. First World Health Assembly in Geneva with delegates from 55 governments
- 1951 International sanitary regulations adopted, replacing international sanitary conventions
- 1969 These regulations are renamed the International Health Regulations; they deal with cholera, plague, smallpox, and yellow fever
- 1973 Election of Dr Halfden Mahler as director general. Executive board concludes that there is widespread dissatisfaction with health services. World Health Assembly decides that WHO should collaborate with member states in developing guidelines for national health care systems
- 1974 Expanded programme on immunisation is launched against poliomyelitis, measles, diphtheria, whooping cough, tetanus, and tuberculosis
- 1977 World Health Assembly sets target of health for all by the year 2000. WHO launches the essential drugs programme
- 1978 Joint WHO/Unicef international conference in Alma-Ata, Soviet Union, declares that primary health care is the key to achieving health for all
- 1979 UN General Assembly and World Health Assembly reaffirm that health is a powerful lever for socioeconomic development and peace. A global commission certifies the worldwide eradication of smallpox, the last known natural case having occurred in 1977
- 1981 Global strategy for health for all by the year 2000 is adopted and endorsed by UN General Assembly
- 1982 World Health Assembly votes to freeze WHO's budget
- 1985 American senate decides to pay only 20% of its assessed contributions to all UN agencies that do not adopt weighted voting procedures (Kassebaum amendment)
- 1987 Global Programme on AIDS is launched
- 1988 Dr Hiroshi Nakajima elected director general
- 1993 Dr Nakajima re-elected amid allegations of vote rigging. External auditor finds evidence of serious financial mismanagement. UN decides that Global Programme on AIDS should be run as a UN-wide programme

displayed in many of its offices. But campaigns aimed at the individual consumer—something that WHO does not contemplate for other disease causing agents—are small beer compared with the advertising might of the multimillion dollar tobacco industry. As manufacturers increasingly target fresh markets in the developing world and central and eastern Europe, there is little sign that Dr Nakajima plans to tackle tobacco in the way that his predecessor did the drug and infant formula manufacturers.

Policy vacuum

In the absence of effective leadership WHO has sunk into a policy vacuum and is in danger of losing the initiative on international health issues. Dr Nakajima's attempts to establish what he has called "a new paradigm for health" are either too complicated or too poorly articulated for most people to follow. His speech writer, Nicole Biros, spent 10 minutes explaining to me what the paradigm was. I came away with the words "a holistic, dynamic model of health" that should be "constantly reassessed in time and place" but with the feeling that if even she couldn't put the idea across it was a lost cause. Many of Dr Nakajima's advisers agree and, realising that the unexplainable paradigm is becoming an embarrassment, are hoping that it can be quietly forgotten.

Attached to the medical model

The lack of clear policy is aggravated by WHO's failure to relinquish its hold on the traditional medical model of health. Despite the multisectorial rhetoric of Health for All, the organisation itself does not reflect health as a broad social issue. It continues to recruit doctors to most of its professional posts, and almost all staff in senior positions are doctors. It employs few economists, engineers, sociologists, and anthropologists. Staff express their frustration at WHO's limitations. As Dr Mirosław Wysocki, head of health information in the South East Asia regional office put it, "The main determinants of health—poverty, education, and environmental degradation—are beyond WHO's reach. They are too complex for us."

WHO's persistent medical bias is most clearly manifest in the siting of its country offices within national ministries of health. WHO says that this arrangement is a strength. The country representative is ideally placed, it says, to influence health policy through direct contact with the minister. But health ministries are traditionally one of the government departments with the lowest status, and the WHO's representatives have no direct contact with other more powerful departments whose policies impact on health, such as education, employment, home affairs, and finance.

Losing ground to other agencies

WHO's failure to adapt to the new definition of health has left the way open for other, broader based agencies. Unicef, the United Nations Development Programme, and the World Bank are increasingly taking the initiative on health, and all employ doctors as part of a multisectorial professional team. Last year brought clear evidence of the United Nations' lack of confidence in WHO's abilities to tackle the broader health issues: the Global Programme on AIDS, WHO's largest programme (with a budget for the last biennium of \$164m) was taken out of WHO's sole control. It is now a multiagency programme run jointly by WHO, the United Nations Development Programme, and the United Nations Population Fund. Dr Michael Merson, the programme's director,



There is little sign that WHO plans to tackle tobacco in the way it once did the drug and infant formula manufacturers

acknowledged that many people in the United Nations felt that WHO's technical base was too narrowly medical for it to deal effectively with AIDS prevention and control.

On WHO's traditional ground of setting normative standards and giving guidance on specifically medical aspects of health the other agencies present no real challenge. When Unicef in India started using oral rehydration powders that differed from WHO's, it was Unicef who bowed to WHO's advice. But there are signs that, instead of leading the way on health policy, WHO is becoming simply the agency that advises other agencies (and member states) on medical matters. The World Development Report 1993, produced by the World Bank, continues the bank's advocacy of the widely criticised structural adjustment programmes and proposes that tertiary care should be paid for by private money.¹⁰ The authors acknowledge help from WHO's staff. Under other circumstances, says Professor L M Nath, dean of the All India Institute for Medical Sciences in Delhi, WHO would at least have discussed if not criticised the report's conclusions. Its role as technical adviser has prevented it from doing so. "WHO used to be the ultimate court of appeal where health was concerned," he said. "The World Bank has wrested the initiative from WHO in health matters. A few years ago this would have been inconceivable."

Dr Jonathan Mann, former director of the Global Programme on AIDS and now director of the school of public health at Harvard, says that WHO must return to its intellectual and moral roots as laid down in its constitution. "WHO is missing a historic opportunity. It is taking a large step back into the past, back into its role as a biomedical and technical agency. It is diminishing its role just at the time when the world is looking for health leadership."

Conclusion

WHO's heyday was in the late 1970s and early 1980s. Its role as advocate on health policy was clear, and it had the courage and leadership to speak out against the vested interests of its major donors. But talk of a heyday suggests an institution in decline. WHO continues to do important work, but much of it comes from initiatives launched more than a decade ago, such as Health for All and the essential drugs programme. These are now having to maintain their momentum with little help from above. WHO has failed to come up with convincing new initiatives to confront major health threats such as population growth and tobacco. It is in retreat, stuck despite its multisectorial rhetoric in the outdated medical model of health, and badly in need of leadership if it is to evolve to meet the health challenges of the next century.

1 Walt G. WHO under stress: implications for health policy. *Health Policy* 1993;24:125-44.

- 2 Jacobson H. WHO: medicine, regionalism and managed politics. In: Cox RW, Jacobson HK, eds. *The anatomy of influence: decision making in international organisations*. Princeton: Yale University Press, 1973.
- 3 World Health Organisation. *Global strategy for Health for All by the Year 2000. 16th plenary session of the World Health Assembly, 1981*. Geneva: WHO, 1981.
- 4 World Health Organisation/Unicef. *Alma-Ata declaration on primary health care*. Geneva: WHO, 1978.
- 5 World Health Organisation. Resolution 23. In: *34th session of the World Health Assembly. Handbook of resolutions and decisions of the World Health Assembly and the Executive Board 1973-84*. Geneva: WHO, 1985.
- 6 Walt G, Harmmeijer JW. Formulating an essential drugs policy: WHO's role. In: Kanji N, Hardon A, Harmmeijer JW, Mamdani M, Walt G. *Drugs policy in developing countries*. London: Zed Books, 1992.
- 7 New director general for the World Health Organisation. *Lancet* 1988;ii:291.
- 8 Kanji N. Charging for drugs in Africa: Unicef's Bamako initiative. *Health Policy and Planning* 1989;4:110-20.
- 9 Unicef/HAI/Oxfam. *Report on the international study conference on community financing in primary health care, Freetown, 23-30 September 1989*. Amsterdam: HAI/Unicef, 1990.
- 10 World Bank. *World development report 1993*. Oxford: Oxford University Press, 1993:4.

Grand Rounds—Hammersmith Hospital

Nocardia pericarditis

A rare opportunistic infection

Case history

A 71 year old woman was treated for an uncomplicated haemorrhage from an intracerebral aneurysm in 1987. She recovered completely but was noted to be hypertensive. Her blood pressure was subsequently controlled with hydralazine and atenolol. She remained well until March 1993, when she presented with a four month history of weight loss, malaise, and shortness of breath. Investigations showed severe renal impairment, and renal biopsy showed a focal necrotising glomerulonephritis with crescents. She also had high titres of perinuclear antineutrophil cytoplasmic antibodies. Microscopic polyarteritis, possibly precipitated by hydralazine, was diagnosed. The hydralazine was therefore discontinued. Her polyarteritis was treated with high dose prednisolone, with cyclophosphamide for the first three months and azathioprine subsequently. She was discharged well after seven weeks.

Three months later, she was admitted to her local hospital with presumed bacterial pneumonia. No pathogen was isolated. She was treated with antibiotics and transferred to our hospital. Further investigations included a bronchoscopy, which showed no infectious agent, computed tomography of the thorax, and tests of pulmonary function, which suggested early fibrosing alveolitis. She improved clinically with appropriate antibiotics.

Two months later she presented with a seven week history of bilateral pleuritic chest pain, increasing shortness of breath, and generalised weakness. Her drugs included prednisolone (17.5 mg per day) and azathioprine (75 mg per day). She had a temperature of 38.3°C and was centrally cyanosed and dyspnoeic. Her heart rate was 92 beats/min and blood pressure 120/70 mm Hg. Auscultation of the chest showed bilateral coarse inspiratory crepitations posteriorly. Examination found no other abnormalities. She had normochromic anaemia (haemoglobin 84 g/l), a neutrophil leucocytosis (white cell count $14.0 \times 10^9/l$, 96% polymorphs) and raised platelet counts ($577 \times 10^9/l$). Her urea concentration was 16.5 mmol/l and creatinine was stable at 164 $\mu\text{mol/l}$. C reactive protein concentration was raised at 242 mg/l (normal 0-10 mg/l), and perinuclear antineutrophil cytoplasmic antibodies were still detectable. She was hypoxaemic on air with an arterial oxygen pressure of 6.5 kPa, improving to 9.6 kPa on 60% oxygen. Chest radiography showed fine interstitial shadowing throughout both lung fields. Electrocardiography, Doppler ultrasonography of the legs, and a ventilation and perfusion scan gave normal results, and cultures of blood, sputum, and urine were sterile.

She was started on intravenous cefotaxime and oral

erythromycin. Over the next few days her clinical condition deteriorated and she required continuous positive airway pressure ventilation to maintain oxygenation. High dose co-trimoxazole was started to treat possible *Pneumocystis carinii* pneumonia, and her immunosuppressive treatment was increased because of concern about continuing alveolitis. Computed tomography of the chest showed, as an incidental finding, loculated thickening of the pericardium (fig 1).

At this stage *Nocardia asteroides* was grown from a blood culture. She was already taking appropriate antibiotic treatment. The next day the patient collapsed and was found to be tachycardic at 130 beats/min and hypotensive (90/40 mm Hg) with 15 mm Hg

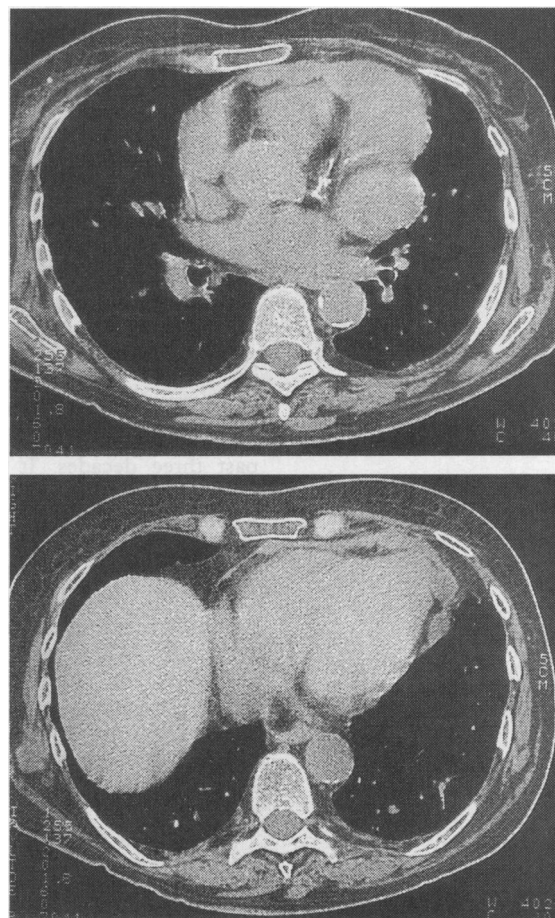


FIG 1—Computed tomograms taken with mediastinal window setting at level of left atrium (top) and ventricles (bottom). The pericardium is greatly thickened and lobulated predominantly along the anterior and left lateral cardiac borders



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