



Unchecked Idealism: WHO's Epidemic?

By Roger Bate

When the World Health Assembly of health ministers from around the globe gathers this month in Geneva, of particular concern should be the performance of its parent organization, the World Health Organization (WHO). Thirty years ago, WHO celebrated its greatest triumph: the eradication of smallpox. Not only has this victory not been repeated, but today WHO rarely comes close to achieving its targets in combating disease. Its target-setting mechanisms have been so misused that WHO has lost credibility. WHO targets have been unrealistic or impossible to measure, leading some to conclude that they are designed primarily—if not entirely—for fundraising, cheerleading, and motivational purposes. Worse still, WHO's approach is being copied by other United Nations (UN) agencies. WHO should drop its grandiose goals in favor of measured and sustainable approaches to disease control that yield results.

World War II resulted in the deaths of over 60 million people, many of whom died of disease. Vast postwar migration threatened to raise this toll as outbreaks of disease accompanied population movements. WHO, a specialized agency of the UN, was founded in 1948 to address the threat. WHO's objective, as set out in its constitution, is "the attainment by all peoples of the highest possible level of health."¹ WHO is rightly considered the leading global health agency with its 193 members, sizeable fiscal resources, and considerable public health expertise. WHO alone is able to mobilize countries to confront the gravest public health concerns and identify diseases for eradication or control.

Some of its early targeting was optimistic, but at least it led efforts to attack horrible conditions aggressively. The first attempts to eradicate yaws and malaria were partially successful. Yaws is caused by the bacterium *Treponema pallidum*, which is spread through skin contact. Eradication failed, but significant reductions in the tropics were achieved with WHO's help

during the 1950s and 1960s. Similarly, the first attempt to eradicate malaria with the insecticide DDT succeeded in fourteen countries and lowered rates in many others. But unwarranted optimism and—eventually—donor fatigue led to the abandonment of the global malaria eradication program.

While advances in disease control were made in its early years, WHO succumbed to—and indeed spearheaded—the troubling practice of setting unrealistic health targets. Because of poor or nonexistent data collection in target countries, some targets are simply unattainable. How can one claim to halve the incidence of disease among a population if the baseline number is unknown? And what is the relevance of a chosen indicator that does not adequately reflect the burden of disease? For example, a malaria prevention program run in partnership with WHO and other organizations has claimed success purely on the basis of the number of bed nets distributed during a given time period, and not a reduction in the number of cases. This is akin to declaring a movie a hit based on its production budget and not on its box office sales.

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Pragmatism, cultural preferences, and sound scientific methods led to WHO's early success, but when its agenda moved in the direction of social engineering in the late 1970s, it lost its way.

Smallpox Success

After an unsuccessful attempt in 1958, the campaign to eradicate smallpox began anew during a World Health Assembly meeting in 1966. Explaining why the initial attempt to eradicate the disease had been abandoned, one Soviet health expert said: "It was not enough to say a disease must be eradicated; the possibility of doing so must exist, and there seemed no justification for over-optimism."² In the intervening years, more epidemiological data had been collected and studied, so when the topic came up again for discussion at the meeting, a French delegate noted that "a sounder basis for smallpox eradication" had now been established.³ An intense campaign was launched soon thereafter; WHO allocated \$15 million annually (in 2007 dollars) to forty-six countries on three different continents until the disease was successfully eradicated in 1977, only a year past the initial target date.

The smallpox eradication program worked due to the combination of several factors. Smallpox's straightforward diagnosis and its uniqueness to humans made it an excellent candidate for eradication. Furthermore, an effective vaccine was developed by 1966, and it could be deployed widely at relatively little expense. The director-general of WHO at the time, Halldan T. Mahler, highlighted yet another important factor when he described the eradication project as a "triumph of management, not of medicine."⁴ WHO convened medical experts from around the developed world charged with implementing the eradication programs using the "vertical" approach—an approach similar to a military invasion—in which a team of highly trained medical staff with the appropriate clinical equipment arrives in a country and immunizes everyone. Once each person in an area has been identified and treated, the team moves on to the next target area. Such a process relies less on a country's own public health infrastructure than on the efficacy of the treatment intervention, the competence of the immunizing staff, and the willingness of the country to

allow the necessary procedures. Since it was in the interest of most countries to allow these interventions to eradicate smallpox, WHO faced no local opposition. In some instances, countries with fewer cases of the disease than expected, such as the United States and the Soviet Union, supplemented WHO's stockpile of vaccines with their own reserves.

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The characteristics of smallpox, the exceptional quality of the management and personnel involved in the eradication program, the program's feasibility, and the strength of national political will made the program successful. These factors, however, were unique to the anti-smallpox campaign. Most infectious diseases being tackled today have carriers other than humans. Their diagnoses are also often more difficult. Moreover, many disease control programs—such as those for malaria and HIV/AIDS—have become politicized, and interventions have been made because they were politically favored rather than medically or scientifically sound. Examples of favored groups include religious organizations that oppose the use of condoms to prevent HIV transmission and environmental groups that opposed the use of DDT, the first modern and most widely available insecticide for malaria control.

WHO's Cultural Sea Change: Health for All

A tour of WHO's history of disease control reveals several instances of programs with firm targets and deadlines being abandoned or neglected after the initial euphoria subsided. From 1977 on, WHO focused on improving socioeconomic conditions for people around the world. To this end, in May 1977 the World Health Assembly launched the Health for All campaign, the thrust of which was "the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life."⁵ In setting a goal to elevate public health for the world's poorest, WHO correctly observed that better health only follows from improvements in education, sanitation, and health support, and that these conditions are created only by domestic wealth generation. What WHO failed to acknowledge in its targeting, however, was that for Health for All to succeed, it would require radical changes to the existing health-care delivery

systems of each country—a responsibility best suited to health ministries of national governments and not to a global body.

Yet WHO persisted with the campaign, diverting its relatively meager funds from effective vertical disease-control programs toward building health infrastructure in countries. Part of the reason WHO switched funding from vertical disease-control programs to promotion of health systems and occasional small transfers to ministries of health was a hangover from colonialism—and a push for wider independence from the West for poor countries. The white, Western, male-dominated WHO of the past cared little for cultural niceties when it ran “commando” efforts to combat malaria and smallpox. But the world was changing, and WHO found it politically easier to give funds to health departments to improve “horizontal” health programs—those which involve local governments and ministries of health—no matter how bad they were, rather than incur the wrath of governments and media happy to portray past policies as a continuation of colonialism.

By 1988, the health situation in many countries was continuing to deteriorate, with governments apparently caring even less about the poor and sick than their former colonial masters did, contrary to all the hoped-for outcomes of Health for All. By the early 1990s, the enthusiasm for the campaign had waned as WHO realized it had little influence in fixing weak health infrastructure—the biggest barrier to health improvements in sub-Saharan Africa. By 1996, Health for All had been abandoned entirely without further discussion, quietly discarded in the ash heap of failed WHO programs.

Though undermining WHO’s credibility, previous unrealistic attempts at disease control created little permanent public health damage. Health for All had a more pernicious effect, however, since it led to the abandonment of the more successful vertical programs, which, in turn, increased incidence of malaria and other diseases and made future disease targets dependent entirely on actions of other parties, with WHO acting mainly as cheerleader, not an effective leader.

Consider the campaign to eliminate leprosy. WHO set a goal in 1991 for the “global elimination of leprosy as a public health problem” by 2000. WHO claimed such a goal was feasible based on contemporary data; it defined the elimination of leprosy as achieved once the prevalence of the disease was below 1 case per 10,000.⁶ By 2000, global estimates showed that the elimination target had indeed been reached. There were several

indications, however, that this landmark achievement had been contrived.

Two scholarly articles indicate that WHO’s claim to have eliminated leprosy may have been more of a statistical chimera than a true indicator of progress.⁷ Specifically, the authors argue that WHO did not require the countries providing leprosy statistics to show effective surveillance for the disease. Patients were left to present themselves—they were not actively sought out—and staff was not specially trained to detect and diagnose cases, resulting in misleadingly low prevalence numbers. More problematic still was WHO’s clinically dubious decision to reduce the treatment period of lepromatous leprosy from twenty-four months to twelve. This action halved the global number of registered leprosy cases. Taken together, the study’s findings suggest that WHO’s “elimination” of leprosy is not as remarkable as it seems, and that the pressure to reach the goal may have resulted in unwise and unsustainable health decisions.

The leprosy campaign epitomizes the WHO of the early 1990s: targeting of a critical disease without fully fighting it, eagerness to embark on projects without acknowledging their limitations, and manipulation of data to appear successful. But the anti-leprosy campaign probably did not endanger public health. In a league of their own, however, are recent WHO campaigns that were so ill-conceived and mismanaged as to have actually endangered public health.

Harming the Sick: Roll Back Malaria and 3 by 5

In 1998, amid rising malaria mortality rates in the developing world, WHO joined forces with other UN agencies to halve the global malaria burden by 2010.⁸ This partnership, dubbed Roll Back Malaria (RBM), was launched with no new funding and offered little in the way of innovative strategies to tackle the disease. Furthermore, none of its participating organizations took responsibility for establishing the baseline infection rates they aimed to halve, making a mockery of the target right from the start. One of the legitimate ways to track malaria control is through the analysis of the number of deaths from the disease, but data on malaria mortality rates from endemic areas remain elusive even today due to crude data-collection systems and lack of coordination in poor countries. Therefore, a promise to halve an unknown number—without any valid basis to monitor improvements—was bogus.

The damaging public health consequence of RBM's target-setting was revealed in its choice of disease-intervention policies. RBM's intervention of choice was the promotion of bed nets. Issuing or selling insecticide-treated nets (ITNs) became more popular during the 1990s among donors than the more controversial—but more effective—interventions such as indoor residual spraying (IRS) with DDT, which repels and kills malarial mosquitoes. ITNs are not foolproof talismans against malaria. They are often used incorrectly, they are prone to tearing, most require re-treatment after one year, and they ultimately fail to protect at the usual distribution rate of one net per household. Until recently, RBM promoted chloroquine, a drug that long ago lost its utility due to rising resistance among patients.⁹ Under the threat of losing foreign aid by dissenting from RBM methods, many African nations reluctantly followed the agency's lead and abandoned their more effective IRS programs to rely solely on ITNs for malaria prevention. In 2006, WHO finally promoted IRS using DDT again.¹⁰ By then, however, the damage had already been done. In the intervening years of unrealistic targets and poorly measured outcomes, malaria deaths had probably continued to rise. The best estimate was 2.8 million deaths.¹¹

But not even RBM was WHO's low point. That came in 2003. The "3 by 5" initiative, launched by WHO and the Joint United Nations Program on HIV/AIDS (UNAIDS), was a global target to provide 3 million people living with HIV/AIDS in low- and middle-income countries with life-prolonging anti-retroviral treatment by the end of 2005.¹² From the beginning, this effort faced so many crippling challenges that its failure was predictable. First, the time allotted for the achievement of this goal was unreasonably short. WHO attempted to justify its timetable by presenting 3 by 5 as an emergency measure. For a disease of staggering proportions, however, this was not an appropriate way to scale up the first international treatment campaign against AIDS.¹³ The generally accepted model for fighting an AIDS epidemic is a medium- to long-term effort spanning generations which aims to reduce transmission and enroll those infected in a lifetime treatment regimen. The two-year timetable was perhaps justifiable under a biennial budget or as a political measure to add momentum to

the campaign for the reestablishment of an HIV department at WHO.¹⁴ On public health grounds, however, this precipitous timetable was never justifiable.

Finances for 3 by 5 were also lacking. By 2003, WHO had not succeeded in mobilizing sufficient donor support for its own involvement in 3 by 5.¹⁵ Although the initiative was rescued largely by a commitment of US\$81.7 million from the Canadian International Development Agency, this money was not available immediately.¹⁶ Furthermore, WHO's expertise in carrying out a program of such magnitude was minimal, since it had abdicated responsibility to UNAIDS in

1996 and had no HIV-dedicated country officers.¹⁷ WHO lost all its "commando" project managers in the 1970s with the introduction of Health for All.

Despite a surfeit of serious problems, WHO persisted with 3 by 5, putting undue pressure on poorly funded local health systems. Several countries, particularly in Africa, were encouraged to make commitments they could not afford and undertook revisions of existing treatment targets in line with 3 by 5 on the "expectation of substantially increased financial support which did not materialize."¹⁸ Some of these revisions involved redirecting funds from other primary health-care initiatives, such as maternal and child health. Health workers doing

valuable work in child immunization and other areas were attracted by funding promises to take up HIV projects. Sources in Lesotho and Liberia said at the time that they would have rather pursued holistic health programs, but the lure of higher salaries from HIV programs was irresistible.

But it is the clinical mismanagement of 3 by 5 which is hardest to forgive. Patients were never tested for HIV under 3 by 5—amazingly, that was the policy. Neither were they tested for viral load during treatment. Furthermore, since many of the drugs WHO was supplying were untested and novel compounds from copy drug manufacturers, their quality and efficacy were unknown. A recent study shows that 3 by 5 in some instances "cut corners, over-strained fragile health systems and increased risk for those it purported to help."¹⁹ Despite an increase in the number of people on treatment in sub-Saharan Africa, anecdotal evidence suggests that AIDS deaths rose during this period, as did the the number of patients developing

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drug-resistant HIV strains. But 3 by 5 was unable even to measure these resistance rates.

Rather than admit defeat, the UN simply declared victory²⁰ and flung accusations of failure at South Africa, which had refused any involvement in 3 by 5.²¹ Indeed, the hyperbole was so stark that the phantom “success” of 3 by 5 has encouraged even more fundraising attention to existing targets. A look at ongoing development initiatives reveals that the trend of setting meaningless targets has been enthusiastically embraced by other organizations with the blessing of the international community.

Replicating Failure: the Millennium Development Goals

The UN Millennium Development Goals (MDGs) for health represent the broadest set of meaningless, unachievable targets. Set in 2000, the MDGs are numerical targets and deadlines to measure success in fighting illiteracy, gender inequality, poverty, disease, and other global problems. Of these, five deal directly with health. Although the appearance of firm deadlines and focused urgency make the goals seem realistic and precise, this is far from the case. For example, MDG 5, target 6 pledges to “reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio (MMR).”²² The indicator of progress is the number of women dying through complications of pregnancy and delivery per 100,000 live births. But MMR data collection in the poorest countries (where the MMR is the highest) is unsatisfactory. Therefore, any MMR is, at best, a vague estimate.

The same argument can be made for malaria and tuberculosis, for which the MDGs promise to “halt and begin to reverse the incidence of malaria and other major diseases.”²³ Amir Attaran of Ottawa University notes: “The MDGs, including those to reduce malaria, maternal mortality, or tuberculosis (TB), suffer from a worrying lack of scientifically valid data.”²⁴ According to Attaran, his attempts to encourage the MDGs to improve measurement have not been welcomed by the UN.²⁵ The MDGs may have pushed development higher on the political agenda, but they have done little to help or even evaluate the sick on the ground.

Reality Check

WHO is in a position to play an invaluable role in global health, but as it approaches its sixtieth anniversary next year, it must move toward the sustainable achievement of

realistic health goals. WHO’s role in disease-eradication efforts must be reevaluated, restructured, and revamped. Setting unreachable targets does nothing for the global health community, especially when the inevitable failure of these programs often is so close. The fact that many of these targets cannot even be properly measured is the tip of a vast iceberg of problems that WHO must confront. Having goals, rallying support, and raising funds for health concerns in the developing world are noble efforts, but they are not enough to eradicate a disease.

Smallpox’s eradication shows that success is hard to come by. Disease control and eradication require diligence in planning, cooperation with country-led programs, and evaluation of the sustainability of health infrastructures. Quick fixes such as non-bioequivalent copy drugs and changes in estimation methodology in order to meet short-run targets are in the long run counterproductive to global health.

With relatively few resources but surrounded by donors prepared to spend more money to combat disease, and with unique technical authority and expertise, WHO must devise a clearer concept of what is possible within its mandate: “the attainment by all peoples of the highest possible level of health.” Changes in strategy, direction, and purpose are clearly called for and will be vital to successful public health efforts in the future.

AEI research assistant Kathryn Boateng and editorial assistant Evan Sparks worked with Mr. Bate to edit and produce this Health Policy Outlook.

Notes

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