Big push initiatives in global health

BY ELAINE MEYER

"Big push" global health initiatives are popular, but do they work?

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Employees at a textile mill manufacture durable insecticide-treated mosquito nets for distribution to high-risk areas for malaria.



Above: British Rotarians immunize children in the streets of Lucknow during the polio immunization campaign in Northern India. **Right:** Charles Machiridza, 52, a nurse at the Chiparawe Clinic in Zimbabwe, administers a rapid HIV test.

PHOTOS TOP TO BOTTOM: GATES FOUNDATION, MARC GIBOUX, DFID - UK



laundry list of ambitious global targets now greatly influence the agendas of the many non-government, private, and government organizations that work on global health.

Faced with what they view as colossal global health challenges, public health advocates have increasingly turned to "big push" approaches, focusing enormous financial and human resources on a single specific issue for a finite time, with high target goals.

This includes eradicating malaria, eliminating new cases of pediatric HIV, curing dementia, eradicating polio, and reducing cancer mortality and heart disease by one-fourth what it is today.

While aggressive global targets like those above from the United Nations, the G8, and private foundations are credited with motivating funders and improving the effectiveness of aid, critics have accused these initiatives of imposing on local structures and approaches, diverting resources from more urgent needs, and being difficult to sustain after the interest and initial cash infusions from rich nations and private funders is gone.

"We have a lot of unfinished objectives in global health. The whole field is littered with partially achieved objectives," says Dr. Stephen Morse, a professor of epidemiology at Columbia University who is the co-director of the USAID program PREDICT, which conducts global surveillance for emerging infectious diseases.

Concern about the proliferation of incomplete or abandoned initiatives is becoming more acute with the decline in global aid from the flush aught years even as awareness of new global health needs emerges. The fear is that in this environment, these "big push" initiatives are too single-minded.

That fear was expressed by Dr. Duncan Green, the senior strategic adviser for Oxfam Great Britain, who spoke at a seminar in 2013 about the future after 2015, the target year for achieving the United Nation's Millennium Development Goals, which are a significant motivator for national government and NGO public health efforts.

"Most of the discussion on post-2015 has been what I call 'if I ruled the world.' So a range of people, businesses, politicians, NGOS, in spades, have said, 'if I ruled the world, I would do x, y, zed, and the world would be a better place, which is a fascinating conversation, and you know, it's great, but it's also weirdly sort of self-indulgent,"

Dr. Green recounted having to facilitate the participation of 200 NGOs in a consultation with a high-level panel. Each NGO had 15 seconds to suggest a focus for the UN after 2015. "It was a Christmas tree. It was decorating the Christmas tree with your issue," he said.

Nothing may better illustrate both strengths and the flaws of an aggressive big push health initiative better than the World Health Organization's (WHO) Global Malaria Eradication Program, begun in 1955 with a target of eradicating the disease in five years.

From the start GMEP, as it was known, saw containment of the disease as at odds with eradication. A UNICEF regional director called the two priorities "as great a difference as that between night and day," according to a 2011 article published in PLOS Medicine about GMEP. Believing that the science of malaria eradication was settled, GMEP dismissed local knowledge about disease control if it didn't align with the new eradication technique of spraying DDT or other insecticides. The program also did not integrate well with communities, sometimes creating separate, parallel structures from already existing local health services.

By 1969, facing financial constraints and a new outbreak in Sri Lanka, a country that was once a model of success for those who studied eradication, GMEP determined their goal was not feasible and abandoned it.

When GMEP was disbanded, there were drastic cuts in human and financial resources that resulted in weakened ability to control malaria. These cuts, combined with the emergence of resistance to first line anti-malarial drugs and the withdrawal of DDT from many control programs for environmental reasons, contributed to a resurgence of malaria in many parts of





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Asia, Africa, and Latin America during the 1970s and 1980s.

"There were real costs to having failed to achieve eradication," says Dr. M. Randall Packard, chair and professor of history of medicine at Johns Hopkins University, who is the author of The Making of a Tropical Disease: A Short History of Malaria and is currently working on a book about the history of global health.

Presciently, the League of Nations' Malaria Commission wrote in 1927: "the history of special antimalarial campaigns is chiefly a record of exaggerated expectations followed sooner or later by disappointment and abandonment of the work."

Yet, GMEP did drive down rates of malaria and help to mobilize resources that would not have been brought to bear without the campaign. "While it didn't eradicate the disease and there were lots of criticisms about that campaign, nonetheless, you look at where malaria was before and where it was afterword, I don't think anyone would argue that we're not better off, and we probably wouldn't have gotten there without that," says Dr. Packard.

The contemporary "big push" efforts for better or worse are a legacy of that campaign. People who have worked on these campaigns say that they mobilize resources that would otherwise be hard to bring together.

"There's always debate: do you set a target that's easy to achieve or do you set an ambitious target that's harder to achieve that kind of puts a fire under people's butts that you probably know in your heart might not be achieved in that timeline but will be achieved shortly thereafter?" says Craig McClure, the chief of the HIV/AIDS section of UNICEF, who is based in New York. "You have to strike a balance of how ambitious you want to go because if you get too ambitious you could de-motivate people."

McClure leads UNICEF's participation in the UNAIDS Global Plan to eliminate by 2015 new cases of HIV transmitted from mother to child, which means reducing the rate of transmission by 90 percent, or from 400,000 new infections to fewer than 40,000 worldwide.

There is still a way to go. At the end of 2012, there had been a 35 percent drop in the rate of new infections from when the Global Plan started in 2009, to 260,000



Safe Motherhood Action Group member (left) and pregnant women at antenatal care clinic in Lundazi District, Zambia.

new infections. But that number is a significant improvement compared to the years 2000-2008, when new infections dropped by 26 percent.

McClure says he is not sure at this point whether the Global Plan targets will be met, but he credits them with making a difference in bringing together resources and giving the governments a concrete goal to aim for.

According to executive director of Merck for Mothers Dr. Priya Agrawal, having a goal of reducing maternal mortality by 50 percent in 5 years was key to bringing everyone, including the governments of Uganda and Zambia, together in a private-public \$200 million effort called Saving Mothers, Giving Life.

An external evaluation from researchers at Columbia and New York Universities found that in its first year, the program was largely successful in the approaches it took toward achieving this goal, including working with the community to improve quality of health facilities and providers and raising positive awareness of these facilities.

At a symposium held in November at Columbia University's Mailman School of Public Health on "the potential of big push initiatives in global health," experts inside and outside the project weighed in.

"Big pushes are in fact a recipe for chaos, however there's something to be said for quick wins. Saving a life is saving a life," said Dr. Angeli Achrekar, a senior public health adviser for the U.S. Centers for Disease Control and Prevention, which was involved in the Saving Mothers campaign.

Others at the event acknowledged that the program's long-term prospects remain to be seen. "Sustainability is probably the hardest nut to crack," Dr. Margaret Kruk, an assistant professor of health policy and management at the Mailman School who with Dr. Sandro Galea, chair of the school's department of epidemiology, led the external evaluation of Saving Mothers, Giving Life, said in closing remarks.

She expanded on that idea in a later interview: "Having an ambitious goal is very motivating. The converse of that though is that it's not enough. There is almost no one who would disagree with the statement that you can change a lot in a short time with a lot of money and a lot of motivated people. That's not the trick. The question is how does this sustain,



BIG PUSH

Eradicating malaria. Zabibu Athumani and her son Abirai Mbaraka Sultani rest under an insecticide-treated bed net at their home. (Bagamoyo, Tanzania, 2011)

PHOTO: GATES FOUNDATION

year two, year five, year ten. That requires an invested government, a committed workforce. These kinds of projects can demonstrate the possibility, but to sustain the success, you need a long-term view and an increasing role for government."

Sometimes an ambitious goal can be too ambitious, like the Gates Foundation's decision in 2007 to renew the goal of malaria eradication. "Eradication is not something that is normally feasible. It's a rare event," says Dr. Morse.

To this day, smallpox is the only disease that has been eradicated by humans. And smallpox was "low-hanging fruit," says Dr. Packard. "It was a real achievement, but it was the easiest of all diseases to eradicate. The unfortunate part is having become successful, it became this model of 'oh we did it once, we can do it again,' without really looking at the realities of what it took to do it and how relatively easy it was."

Dr. Morse recalls attending a meeting in the 1990s of a pan-American organization about eradicating the mosquito that causes malaria and dengue and yellow fever—the *Aedes aegypti.* "We knew it's not feasible to do this. There's no strategy for eradicating this mosquito. We managed to control it and then it came back. So why were they talking about eradication? And the reason is that eradicating motivates people."

Even the Gates Foundation appears to have scaled back its expectations, says Dr. Packard. "I don't know that they actually believe in their hearts of hearts it's possible. I've had a lot of conversations with people at Gates, people who have a direct role with malaria. My sense is that early on, there was optimism and much concern that without that kind of goal, the achievements that would be gained with the rollback of malaria would not be sustainable, and they were afraid ministers of finance as well as international donors would get to the point where they'd say, 'things have gone well, there are lots of other problems in the world, let's move on.'"

Another issue that has surfaced around big push initiatives is measurement. In December, the WHO released a damning evaluation of the once highly regarded Chiranjeevi Yojana program to reduce maternal and child mortality in India, which are two of the United Nations' Millennium Development Goals.



BIG PUSH

Eliminating dementia. Shinako Tsuchiya, Senior Vice Minister of Health, Labour and Welfare, Japan. The summit on 11th December brings together G8 ministers and other delegates to discuss dementia. Several experts admit that while there have been mistakes in big push initiatives, the global health community have learned a great deal from them.

The \$25 million public-private program, based in the northwestern state of Gujarat, aimed to prevent deaths related to pregnancy complications by paying women under the poverty line to deliver at designated private hospitals. Initially the program received positive reviews, and won the Wall Street Journal's Asian Innovations Award, which honors private companies or academics that have developed an innovative idea in Asia. The Indian government began recommending it be adopted in other parts of the country.

But the WHO evaluation found that there was no statistically significant change in the probability that women would deliver in health care institutions, in the rate of complications during delivery, and the likelihood that physicians or nurses would be present during birth—all goals of the program. "[T]he program's accomplishments are likely far more modest than have been claimed," says Dr. Manoj Mohanon, an assistant professor of public policy, global health, and economics at Duke University, who led the recent evaluation.

Earlier evaluations that rated the program as successful were based on possibly inaccurate data from participating hospitals, rather than population-based surveys of mothers who gave birth, and did not account for increases in hospital deliveries that were unrelated to Chiranjeevi Yojana or for the self selection of women who chose to deliver in hospitals, according to the WHO study.

Another effort, the Millennium Villages Project out of Columbia's Earth Institute, has also been the target of criticism around how it measures success, which researchers there have defended.

And the Millennium Development Goals

themselves have been criticized for not taking into account where different countries are in being able to meet those targets, something many hope will change when new global priorities are set after 2015.

Several experts admit that while there have been mistakes in big push initiatives, the global health community has learned a great deal from them. "One of the big lessons learned by most people, if they're honest with each other, who work with HIV is that when the money started to flow around 2000-big money started to flowand targets began to be set, the way the world approached the support to countries and spending that money was kind of like an emergency operation-parachute in, create a vertical program, and get something done. And now, 13 years later, we are trying to undo the parallel systems and better integrate," says McClure.

Several people involved in global health initiatives say that they have been better at integrating with already established health infrastructure and with communities since the more competitive days of the early 2000s.

A contributing factor to the success of Saving Mothers, Giving Life was that it provided care by building on infrastructure that was put in place as a result of the President's Emergency Plan for AIDS Relief, says one of the evaluators, Dr. Miriam Rabkin, associate professor of epidemiology at and director of systems strategies for ICAP, a center at Columbia's Mailman School that works on building and sustaining systems for prevention and treatment of HIV and related health issues.

"This approach prevented duplication of effort and enabled implementers to leverage their existing resources—from staff, to vehicles, to relationships with district-level partners—rather than having to start from square one," she says.

The investments in obstetric care infrastructure and personnel have also improved the health facilities' capacity to deliver other services as well. "It's not just going to benefit mothers but people who have car accidents and trauma victims, and various events of this nature," says Dr. Kruk.

For these efforts to work, it is important to be flexible, say others. In the world of HIV/AIDS, the goal of treatment used to be pitted against the goal of prevention—not dissimilar to the WHO's malaria eradication effort. But now the mantra in the AIDS field is "treatment as prevention,"—the scientifically proven idea that treating HIV also helps prevent its transmission.

"There has been an evolution in the global aspirations for HIV over time, and this has often been motivated by availability of new scientific evidence, new resources or new imperatives," says Dr. Wafaa El-Sadr, university professor and professor of epidemiology at the Mailman School and the director and founder of ICAP.

"The HIV world has learned that achieving results is complicated, and it's not going to take one technology or one magic bullet that will make a difference," she adds.

Regarding the Global Plan to Eliminate Pediatric HIV, she says it has been important that the big picture goal is translated into clear local targets "to enable those at the frontlines to know what they need to do—to have clarity as to what needs to be their precise contribution to achieving the big goal."

"Having goals, having timelines is a great motivator," she adds. "Whether it be the Millennium Development Goals or the PEPFAR goals or the Global HIV goals, I think having very concrete objectives with clear targets is enormously helpful. Targets motivate me, they motivate my teams on the ground. These targets can be very ambitious and their achievement not easy, but they serve an important purpose."