FW: The Atlantic: ending a plague in Egypt

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Dear Drs. Maia, Amiran, and Sergeenko, for your interest, story on our friends from Egypt, best, FA

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From: BULTERYS, Marc <bulterysm@who.int>
Date: May 30, 2018 at 6:20:50 AM EDT
To: Averhoff, Francisco (CDC/OID/NCHHSTP) <fma0@cdc.gov>
Subject: FW: The Atlantic: ending a plague in Egypt

Dear Francisco: Best greetings to you. Just FYI also – in Atlantic magazine. Marc

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From: NAMJILSUREN, Oyuntungalag
Sent: 30 May 2018 12:10
To: HQ CDS/HIV; HERMEZ, Joumana George
Subject: FW: The Atlantic: ending a plague in Egypt

Hi all

Pleased to share a good media article on hepatitis C from a top media. Our own Marc B provided a background interview and we supported with information, our hep C access report, launched in March has been cited.

Egyptian workers line up near a van for an examination check-up for Hepatitis C
AFP Contributor / Getty

Why Egypt Is at the Forefront of Hepatitis C Treatment

Despite the availability of revolutionary new drugs, countries with more resources haven't made as much progress against the disease.

- Ted Alcorn
- May 29, 2018

Just five years ago, with the best medical therapies available, the odds of curing a person infected with hepatitis C were no better than a coin toss. Eliminating the disease from a whole country was unthinkable. But today, Egypt is wiping the disease from its population at an unprecedented pace. The effort was made possible by revolutionary new drugs—but no country, including the United States, has come close to deploying them at equivalent scale. Egypt has shown that dramatic improvements in public health are possible when drugs are priced affordably—and a government makes an effort to systematically deploy them. But Egypt is also the exception that proves the rule that while modern society has proven capable of developing transformative medical innovations, it's far less proficient at maximizing their use.

The hepatitis C epidemic in Egypt—the country with the highest prevalence of the disease in the world—started around 50 years ago, when the government was attempting to get rid of one plague and ended up substituting it for another. For millennia the Nile Delta has been an ideal breeding ground for schistosomiasis, a parasite spread to humans by freshwater snails. In the mid-20th century, the Egyptian government conducted multiple mass-treatment campaigns using an injectable emetic—and needles were repeatedly reused. Hepatitis C virus, not yet known but transmitted efficiently by blood, was inadvertently spread to many citizens. By 2008, one in 10 Egyptians had chronic hepatitis C.

The virus causes progressive liver damage that only becomes apparent over a decade or more, when it culminates in cancer or liver failure. By 2015 hepatitis C accounted for 40,000 deaths per year in Egypt—7.6 percent of all deaths there—and depressed national GDP growth by 1.5 percent.

While infection is more common in rural and poor areas, few segments of Egyptian society are untouched by it. John Ward, who led the CDC's division of viral hepatitis for more than 13 years and is now a director at the nonprofit Task Force for Global Health, says he sees its impact even among Egyptian expatriates he meets by chance in Washington, D.C. "I'll be in a cab, I'll say I work on hepatitis C, and that starts the whole conversation going about family, friends, in-laws, fathers lost to hepatitis C. So it's a very big problem."

The outlook for the disease changed in late 2013 with the advent of effective but expensive new cures. Whereas prior treatments induced fatigue and other side effects and cleared the infection in fewer than half of patients, the new therapies were painless and cured the disease over 90 percent of the time. Gilead Sciences introduced the first such drug to the U.S. market at $84,000 per patient. At that price, treating the entire infected Egyptian population would have cost half a trillion dollars, nearly double the country's gross domestic product.

The circumstances recalled the introduction of AIDS drugs two decades ago, when drugmakers set high prices that countries in the greatest need were least able to afford. The Egyptian government wanted to make hepatitis C treatment available to every citizen who needed it. But that would require a sufficiently low price to purchase the huge volume necessary, a system to deliver the drugs to those already diagnosed, and a campaign to screen everyone else for the disease.

As the Egyptian government began price negotiations with Gilead, the country was also scrutinizing the drug company's application for a patent. (They did not issue one, allowing generic manufacturers to enter the Egyptian market.) "I'd call the conversations friendly but they are good negotiators," recalled Gregg Alton, an executive vice president at Gilead who represented the company in the meetings.

Gilead ultimately agreed to license the drugs for sale in Egypt and a number of other countries at $300 per one-month supply, or $900 for the whole 12-week course of treatment. Generic manufacturers eventually drove the price in Egypt to $84 per patient.

Wahid Doss, the chairman of Egypt's National Committee for Control of Viral Hepatitis, says that the country's determination to provide treatment at a massive scale helped them make their case. "Part of the success story and why Gilead agreed was that they saw that we really wanted to have an impact in our country." Gilead ultimately sold their hepatitis C drugs to over 160,000 Egyptian patients, according to Alton. "They made some money as well," Doss points out. "It wasn't an act of charity."

With affordable drugs secured, the country set out to distribute them at a scale never before attempted. In 2014, they debuted an online portal for those with the disease to register for treatment; within three days, 200,000 people had signed up. Over the next three years, more than 1.6 million Egyptians received hepatitis C treatment, according to data from the World Bank. That is more than all the patients treated during that time in the United States and Europe combined.

But that first flood of Egyptians seeking a cure were largely those already diagnosed with hepatitis C, and over time the challenge has shifted from making the drugs available to identifying additional people who need them. "The people going to those treatment centers tend to dry up," explains Ward. "Obviously if you're not testing, you're not diagnosing, and you don't have anyone to treat."

So in 2017, the Ministry of Health initiated a nationwide screening program. More than 260 teams of community-health workers are proceeding village by village. By late 2017, they'd screened 1,200 communities. Still, treatment has slowed from a high-point in 2016. According to the CDA Foundation, which compiles epidemiological data on viral hepatitis, the number of Egyptians treated in 2017 fell by roughly 30 percent compared to 2016, despite an estimated 4 million people still infected in the country.

With the promise of free drugs from the government for those diagnosed, civil-society organizations from factories to churches to mosques have gotten involved in screening, too. The prevalence of hepatitis C is around twice as high in the poorest quintile of the population compared to the wealthiest, but J. Stephen Morrison, the senior vice president of the Center for Strategic and International Studies, says the epidemic cuts across society in a way that has benefited the elimination efforts. "[Hepatitis C] may carry a stigma but there are few families in Egypt who haven't had some loved one who has struggled with this."

Last year, in the upscale neighborhood of Katameya Heights in New Cairo, a chapter of the Rotary Club arranged a hepatitis C screening for the neighborhood residents and their household staff. One of the organizers was Mohamed Ziwar, who had recently retired from a leadership role at the drug company Bayer. He says the club contracted nurses from a local lab that does genetic analysis to spend three days in the neighborhood, where they screened about 1,000 people, and then arranged treatment for the 30 who tested positive. "After we finished this, we got other requests from relatives of these people, that they would love to go through the investigation," Ziwar said.

Ziwar estimated that the club ended up spending about $5,000. It could have been much higher but since it was a charitable effort, the lab did the blood analysis nearly at cost. But screening the whole group was significantly more expensive than the price of the drugs needed to treat the 30 infected residents. This is proving to be true at the national level as well. While the diagnostics are inexpensive, as many as 20 people must be screened to identify one new person who is infected, and it adds up. To ensure all the residents of a given community get tested, screening teams must sometimes return multiple times.

How fast Egypt eliminates the disease hinges on how swiftly it diagnoses the people infected, and

authorities there are still determining the scale of their screening program and gathering the resources to pay for it. At the rate the country is currently screening and treating patients it would cut disease prevalence in half by 2023; if it substantially scales up the program, at an additional cost of $530 million, it could essentially eliminate the disease by then.

The magnitude of Egypt's efforts may make it easier for other countries to follow. Amr Elshalakani, a health specialist at the World Bank, points out that bulk purchases of screening kits used for diagnosis may drive up worldwide production capacity and reduce their cost. "There's an Egypt-specific benefit but also a global public-health good," he said. "Those changes in prices can have global implications for other countries that are looking to address hepatitis C."

And while the new drugs revolutionized the treatment of individual patients, luring the epidemic out of the shadows is now the central challenge worldwide. In 2016, only one in five people globally with chronic hepatitis C has been diagnosed, according to the World Health Organization, and in low-income countries, it is fewer than one in 10. Until those tens of millions of people are screened and diagnosed, they will never benefit from the latest medications. "What is happening in Egypt is just a preview of what every other country is going to face," says Homie Razavi, the CDA Foundation's managing director.

Only a handful of countries are charting a similar path towards elimination of hepatitis C. Many countries with far more resources at their disposal are nowhere close to treating their entire population. For example, of people with hepatitis C in the United States, fewer than 20 percent have received treatment.

In the long-term, the benefits of eliminating hepatitis C are unambiguous—Egypt's campaign will avert tens of thousands of deaths and reduce overall health-care expenditures—but the costs of screening must be paid up-front. "Economically, it makes absolute sense to treat versus not to treat, but the governments hold off. They say 'We're only in office four years, we'll never see the benefit,'" says Razavi. "What is different in Egypt is there was a political commitment to action, and they took that information and ran with it."

It wouldn't have been possible without affordable drugs, either, and for a country to obtain a price within reach, wealth might actually be a disadvantage. In poorer countries like Egypt, pharmaceutical companies have been more willing to offer drugs at or near the cost of manufacturing, to reflect the countries' ability to pay. In another example, last summer Pfizer announced that it would drastically discount a number of its patented chemotherapies in the six sub-Saharan countries where 44 percent of Africa's cancer cases occur.

- Hawaii's Hepatitis-A Outbreak Is Among the Worst in Decades
- $1,000-a-Day Hepatitis C Miracle Drug Gets a Major Price Cut, Just Not In the U.S.
- Gilead Made $2.3 Billion in Three Months Treating 1 Percent of Hepatitis C Cases

But in upper middle–income countries, pharmaceutical companies see an opportunity for profit and are not showing the same flexibility. In China and Brazil, where drugmakers have priced their hepatitis C therapies well above the marginal cost of production, the governments are considering whether to pay—or to deny or legally skirt their patents so generic competition can drive prices down. Experts say that conflicts over drug prices in such markets may only increase as the burden of disease in those countries continues to shift from infectious diseases to those like cancer or diabetes that have effective but costly therapies.

How countries will muster funding to address hepatitis C—and how much—are still open questions. According to the World Health Organization, by the end of 2017 more than 80 countries had developed national plans to eliminate hepatitis C, an almost fivefold increase over 2012, but fewer than half attached a financial commitment. Without resources, few people infected with hepatitis C will be diagnosed and still fewer treated.

In contrast with the past two decades' efforts to address other infectious diseases like HIV, tuberculosis, and malaria, in which international donors made significant contributions and also managed much of how the campaigns were run, countries increasingly have to go it alone. Robert Hecht, the president of Pharos Global Health Advisors, says this represents a shift in global health. "I think the era of these large donor funds for diseases where the money helps pay for the drugs and delivery of care, I think we're seeing the end of that era."

On the whole, it seems easier for global society to develop efficacious drugs than to effectively deploy them. Much of the potential benefit of new therapies often goes unrealized, because high prices render them unaffordable or because governments forgo the effort necessary to deploy them at scale. The monumental

impacts that are possible depend as much on willpower, funding, and detailed policy strategy—the nuts and bolts of public health—as on the cures themselves.

From: Ted Alcorn [mailto:ted.alcorn@gmail.com]
Sent: 29 May 2018 17:53
Subject: The Atlantic: ending a plague in Egypt

My piece on hepatitis C elimination in Egypt was published on the website of The Atlantic today (linked in the tweet below) — hope you have a chance to read and share, and thank you in any case for your assistance during my reporting.

As we near the end of hepatitis C awareness of month, I hope this story draws attention to a bright spot in efforts to improve global public health, and also increases awareness about the opportunities we forgo when drug prices keep revolutionary cures out of reach.

I intend to continue working in this area and look forward to staying in touch with you about this or related stories.

Ted

Ted Alcorn (@TedAlcorn)

5/29/18, 11:31 AM
For those hungry for good news, my latest piece for @TheAtlantic is about a tectonic shift in public health underway in Egypt, which once had the highest prevalence of #hepatitisC in the world but may now be the first country to eliminate the disease. theatlantic.com/health/archive…