

stitutes use biodegradable polymers, thought to be more “green-friendly” than other chemicals.

But according to market trends analyst Thomasnet.com (May 9, 2013), “there isn’t anything currently available with the reliability and quantities of guar gum.” Others have noted that the industry likes to claim its proprietary fracking fluids contain common food ingredients, like guar. For example, the American Petroleum Institute’s July 2014 report, “Hydraulic Fracturing: Unlocking America’s Natural Gas Resources,” uses images of a tube of lipstick and an ice cream bar (which both contain guar gum) as examples of the nonthreatening ingredients in fracking fluids.

By 2014, India’s *The Economic Times* (February 6, 2014) was reporting that guar demand from the US oil/gas sector was again on the rise, with Halliburton and Baker Hughes “the two major buyers of India’s guar gum.” Whether that means PermStim and AquaPerm delivered less than stellar fracking results is not clear.

Ironically, however, increasing climate change is causing weather extremes that endanger India’s

guar crops—another form of volatility for the sector but this time by delayed, weakened, or heightened monsoon seasons. Many peasant farmers themselves, who profit little from the price increases, appear to be turning away from guar, apparently having lost faith in the economic “trickle-down” theory. A July 2014 “Guar Gum Report: India” from corporate advisor threeheadedlion.com quotes farmers saying they are less interested in growing guar. This year a delayed monsoon season was followed by intense monsoon flooding that wreaked havoc across India.

Perhaps fossil-fuel induced climate change will itself be the giant-slayer that brings down the fracking industry. Otherwise, maybe the Big Green NGOs could use their millions to provide free seeds for other crops and help India’s peasant farmers transition away from guar.

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What Cuba Can Teach the World About Disease Control

by Conner Gorry

Cuba’s commitment of 461 doctors and nurses to combat Ebola in West Africa is the largest single-country offer of healthcare workers to date to combat the crisis. But this is not the first example of Cuba’s “unprecedented medical solidarity.” Cuba has also sent medical teams to assist the peoples of Guatemala, Pakistan, Indonesia and Haiti in this past decade. And Cuba has a lot to teach the world about disaster relief and epidemic control.

Guatemala, Pakistan, Indonesia, Haiti. Four different nations that share a common experience: in the past decade, they were all struck by natural disasters which overwhelmed their understaffed and underfunded public health systems. Into the rubble, flooding and chaos of these distinct cultures and contexts Cuba dispatched a specialized disaster and epidemic control team to support local health providers. It was a story of unprecedented medical solidarity by a developing country which few media outlets picked up.

The Henry Reeve Brigade, as it’s known, was established in 2005 by more than 1,500 Cuban health professionals trained in disaster medicine and infectious disease containment. Built on 40 years of medical aid experience, the volunteer team was outfitted with essential medicines and equipment and prepared to deploy to US regions ravaged by Hurricane Katrina (the offer was rejected by the Bush administration). Today, Cuba’s Henry Reeve Brigade is the largest medical team on the ground in west Africa battling Ebola.

While United Nations Secretary-General Ban Ki-moon decried the pallid aid commitment from around the globe, calling for “a 20-fold resource mobilization and at least a 20-fold surge in assistance,” Cuba already had 165 of these specially trained healthcare workers on the ground in Sierra

Leone. Each of these volunteers, chosen from a pool of 15,000 candidates who stepped forward to serve in west Africa, has extensive disaster response experience.

Nevertheless, preparation for this mission required additional, rigorous training at Havana’s Pedro Kourí Institute of Tropical Medicine with biosecurity experts from the United States and the Pan

Cuba’s Brigade is the largest medical team on the ground battling Ebola.

American Health Organization. This rapid mobilization of sorely needed health professionals begs the question: how can a poor developing country spare qualified, experienced doctors and nurses?

By pursuing a robust medical education strategy, coupled with a preventive, community-based approach, Cuba, a country of just 11.2 million inhabitants, has achieved a health picture on par with the world’s most developed nations. This didn’t happen overnight. Rather, Cuba’s admirable health report card results from decades of honing a strategy designed specifically for a resource-scarce setting.

By locating primary care doctors in neighborhoods and emphasizing disease prevention, the

health system—which is universal and free at the primary, secondary and tertiary levels—makes care accessible and keeps people as healthy as possible as long as possible, saving resources for more expensive treatments and interventions in the process.

But prevention and health promotion by community-based healthcare workers are only part of the story. Cuba's policies and practices both at home

More than 50,000 Cuban health professionals are serving in 66 countries.

and abroad (currently more than 50,000 Cuban health professionals are serving in 66 countries) are built on several principles proven effective in resource-scarce settings.

First, coordinating health policies at the local, regional, and national levels is essential; this is particularly important where infectious diseases are concerned since uniform protocols are integral to containment.

Next, health initiatives must be cross-sectoral and based on integrated messages and actions. A fragmented, uncoordinated response by and among different agencies can prove dangerous and even deadly. This was tragically illustrated by the death of Thomas Eric Duncan in Dallas and the US Centers

for Disease Control's allowing a nurse who had Ebola to travel on a commercial flight.

Finally, infectious disease outbreaks must be addressed quickly—easier said than done in poor settings, where public health systems are already strained or collapsing.

The Ebola outbreak snaps the need for Cuba's approach into sharp relief: only a coordinated response, provided by well-trained and equipped primary healthcare professionals will contain this—and future—epidemics. Indeed, policymakers such as the World Health Organization's Margaret Chan and US secretary of state John Kerry have lauded the Cuban response, underscoring the importance of collaboration as the only solution to this global health crisis.

Forging this solution, however, requires harnessing the political will across borders and agencies to marshal resources and know-how. Havana took up the challenge by hosting a special Summit on Ebola with its regional partners and global health authorities on October 20, 2014. Noticeably absent were US health representatives; if we're to construct a comprehensive, integrated and effective global response, all resources and experience must be coordinated and brought to bear, regardless of political differences. Anything less and Ebola wins.

Conner Gorry is senior editor of *Medicc Review* (Medical Education Cooperation with Cuba) <http://medicc.org/ns/>. You can follow Conner Gorry on Twitter @ConnerGo.

“You know your government has failed when your grandma starts to riot”

A Review of Naomi Klein, *This Changes Everything*

by Kim Scipes

This Changes Everything: Capitalism vs. The Climate by Naomi Klein, Simon & Schuster, New York, 2014, 566 pages, ISBN: 978-1-4516-9738-4, \$30.00.

Naomi Klein has once again mobilized her impressive journalistic and writing skills, this time to address the issue of climate change in *This Changes Everything: Capitalism vs. The Climate*. The timing of her new book is propitious, coming out in the same month as the Global Climate March in New York City (September 2014) and 2700 demonstrations worldwide the same day. It should be seen as another important arrow to be added to the quiver of the global movement for life.

Klein's clarity is striking, as is her ability to cut through the nonsense and obfuscation of not only the mass media, but of those of corporate and governmental “leaders” who are in the process of killing the atmosphere (or those denying it is being murdered) and thus each of us. She reports that a non-binding agreement signed in Copenhagen by the major polluting countries to keep the rise in the Earth's temperature below 2 degrees Celsius is a joke: “[greenhouse gas] emissions are rising so rapidly that unless something radical happens within our economic structure, 2 degrees now looks like a utopian dream.”

A 2 degree Celsius temperature increase in the Earth's average temperature from that of the year

1750—the beginning of the industrial revolution—has been long seen as the most the planet can tolerate before we start having major negative ramifications in natural systems that sustain human and animal life as well as that of many plants; 2 degrees

“...the ‘warmists’ in the political center...are still insisting that the response can be gradual and painless...”

today is generally seen by climatologists and other earth scientists as an increasingly inadequate standard.