

# Crash Anti-Pandemic Program: Rebuild Nations, Public Health, Food Production

by Marcia Merr Baker

May 2—The fundamental requirements for public health—safe, plentiful water; decent nutrition; shelter; protection from pests; modern medical treatment; productive work—are lacking for billions of people internationally.

We here reiterate the emergency measures required, in three broad areas: public health and medical treatment; water, sanitation and power infrastructure; and, dismantling the globalized agriculture system of mega-production centers and worldwide food chains that fosters disease and hunger.

*“Global sourcing” of food—as the World Trade Organization euphemistically terms it—must be stopped dead in its tracks.* It has been a blueprint for the emergence and transmission of pathogens and food-borne illness, as well as heightening food scarcity. There are numerous instances of “free trade-era” diseases; for example, the 1980s BSE (bovine spongiform encephalopathy) outbreak under British Prime Minister Margaret “Mad Cow” Thatcher. Illness is today more frequent from dangerous strains of *E. coli*, salmonella, and other microbes. In plantlife, there is the case of the rapid spread of soybean rust, since its 2001 arrival in the vast soy monoculture regions of South America.

A hallmark of the past four decades of increasing globalization is the imposition of cartel livestock mega-farms, monoculture cropping, centralized food processing and worldwide foodchains. Monsanto, Cargill, DuPont/Pioneer, and a few others have wrongfully imposed patent-rights over foodseed stocks and genetic-improvement techniques, insisting on their “intellectual property rights,” over the means to life.

Smithfield Holdings, headquartered in the United States, now accounts for 20% of all the hogs grown in the U.S.—operating gigantic sow factories in North Carolina—and is the largest processor of pork worldwide. In Mexico, Smithfield has two partners in hog

mega-farms, Norson and Granjas Carroll, producing in the range of 1.5 million hogs a year.

In tandem with this kind of neo-British East India Company approach, high-tech, family-scale agriculture in many national farmbelts has been dismantled—from Argentina and Canada, to Europe and Australia. In Africa and most of Asia, productive nation-serving farming has been completely denied by the London-centered cartel powers. Billions of people are dependent on “world markets” to obtain or export food, which was undesirable even when markets “worked well.” But now, this means starvation.

There are particular disease dangers with concentrated animal feeding operations (“CAFOs”), as the World Health Organization (WHO) and other agencies politely call the giant cartel hog, chicken, and cattle operations. There is suspicion that there may be a connection between the early outbreak of the new A/H1N1 virus in the town of La Gloria in Vera Cruz, Mexico, and the Smithfield/Granjas Carroll hog CAFO in the same state, at Perote.

However, there is no question mark over the fact that huge meat-animal factories, when anything goes wrong, create automatic food shortages, and are set-ups for big disease outbreaks, when and if the right microbe mix occurs. In farm landscapes characterized by family-scale agriculture operations, there are natural distances between farms, and among towns, allowing for containment and treatment of zoonotic and botanical diseases, and lessening the hit to food output, and the likelihood of species jumps between humans and animals.

In particular, hog mega-farms are grounds for worry, because certain strains of influenza can be transmitted, either way, between hogs and humans. It is this connection that, for decades, has produced new flu strains in southern China, where animals and humans live in primitive, close-quarter conditions. Hog mega-facto-

ries in Mexico, the U.S., and elsewhere, have replicated this by having tens of thousands of animals closely confined, tended for long-hours by “cheap” labor gangs—tired, undernourished—creating favorable conditions for incubating new hybrids of flu between humans and swine.

In recent years, more frequent and more virulent strains of swine flu have been tracked. In 2003, *Science* magazine reviewed the danger, reporting that as of the late 1990s, “after years of stability, the North American swine flu virus has jumped onto an evolutionary fast track.” The new A/H1N1 is a triple-mix of viral material from human, swine, and bird sources.

The CAFOs and all forms of “global sourcing” must be dis-assembled as rapidly as possible. In the meantime, governments can intervene to save and expand family farming with floor-prices for hogs, and the outlawing of any kind of speculation in food and farm-input commodities, etc., in order to protect the food supply.

### **The Medical Defense System**

*Three sets of actions are imperative to give the maximum protection to populations: 1) vaccination capability and stand-by treatment infrastructure; 2) in-depth public health and hospital-centered systems of sanitation and medical care; 3) bio-science research and development.*

**Vaccines, anti-viral medications and stand-by treatment.** On April 29, WHO director Dr. Margaret Chan issued an appeal to pharmaceutical companies to ramp up production of anti-viral medicine, and to donate stocks for coordinated use. The anti-virals Relenza (zanamivir) and Tamiflu (oseltamafu) are effective against the new A/H1N1. In 2005, Roche Holdings AG supplied 5 million doses of Tamiflu to the WHO, which is sending 2 million doses to developing nations, and reserving the rest for quick response. But this is puny relative to need, and for the contingency of dealing with “normal” flu and other infectious diseases that may hit at the same time. A “war mobilization”-type intervention is required to rapidly expand capacities to develop and produce anti-viral medications. The same goes for vaccines.

On May 1, Dr. Marie-Paule Kieny, director of the WHO Initiative for Vaccine Research, announced that a decision is near on whether to go for full-scale produc-

tion of an A/H1N1 vaccine globally. All the preliminaries are in place. The U.S. Centers for Disease Control (CDC) is providing the seed virus in two forms: the usual form for growth and reassortment in eggs, and the reverse genetics approach (which carries patent rights). By mid-May, the virus will be ready to transfer to manufacturers in many countries.

As in all questions of infrastructure, kept down during the past 40 years of globalization, there are great constraints in vaccine production capacity, and also in producing anti-viral medications. After the 2004 episode of botched production of vaccine for the flu season, at the facility in Liverpool, England, and the renewed outbreak of avian flu, new vaccine capacity was spurred by government and commercial action. “Pandemic production capacity has increased by 300% over the last two years,” according to the WHO and the New York City-based firm Oliver Wyman, in a February 2009 statement about their survey of some 44 vaccine firms worldwide. China and India have significantly expanded their capacity. India now has world-class facilities, and even has a cholera vaccine in production.

But still, for much of the world, especially the Americas and Africa, *the medications and capacity to produce them, do not exist* on the scale required. Capacity must be expanded for maximum deployment and to build stockpiles.

In addition to vaccines, other anti-disease products must be developed and mass-produced as required. There is an urgent need for virus test-kits. There are also new aids to retard the spread; for example, a special microbe-killing face mask has been devised.

Veterinary health requires a similar spectrum of medications and products for bio-security for livestock. The Paris-based World Organization of Animal Health, as well as leading agriculture universities in North America, are specifying guidelines.

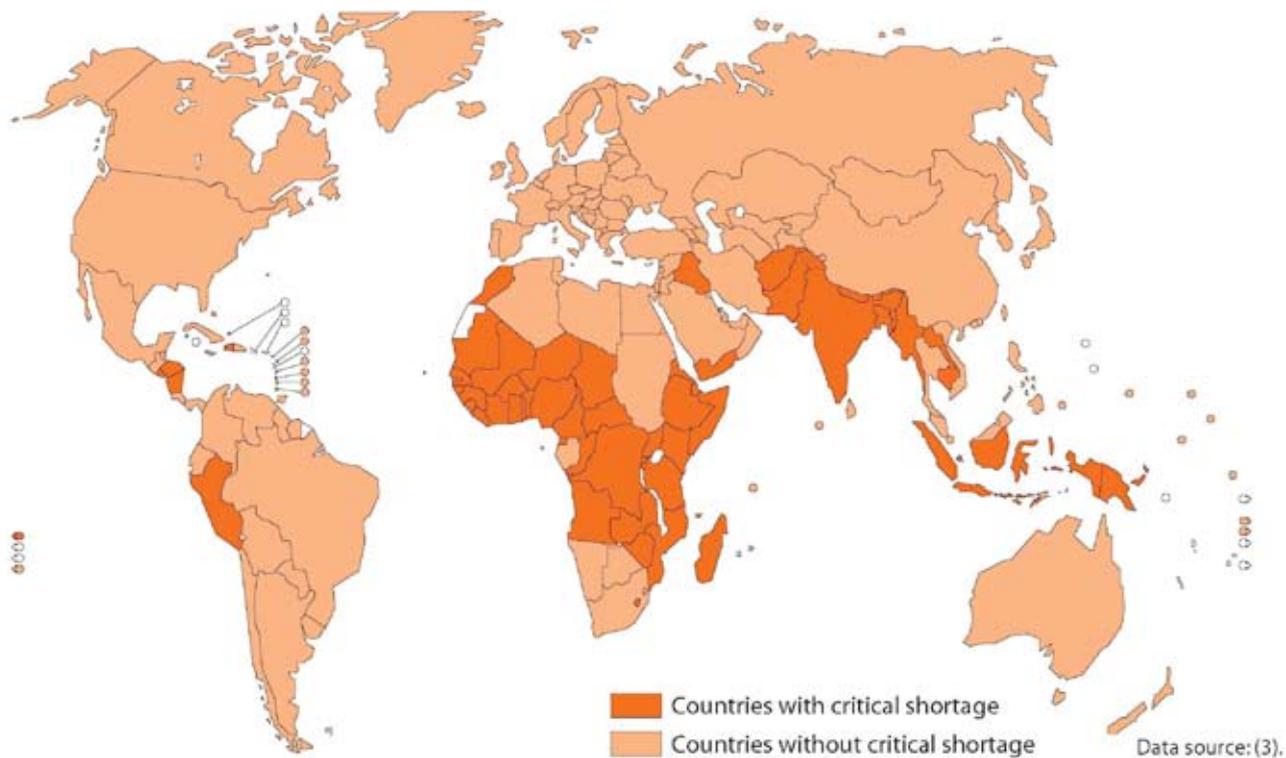
### **Raise ratios of hospital beds, medical and public health staff.**

The frontline defense against disease are ranks of public-health workers, and hospital-centered systems of treatment, sanitation, disease-monitoring, and education. Under globalization, the ratios of these staff and facilities per thousands of population have all been falling for decades.

**Figure 1** gives a snapshot of the world picture where millions of people live in countries with a “critical

FIGURE 1

**Countries with a Critical Shortage of Health Service Providers (Doctors, Nurses, Midwives)**



World Health Organization, 2006 report.

shortage” of doctors, nurses, and midwives. The graphic is from the WHO’s *World Health Report, 2006*, “Global Distribution of Health Workers.” Moreover, even those countries listed as “without critical shortage” have ratios below what can and should be the modern standard of numbers of physicians, nurses, and others per 1,000 persons. For example, the United States, Australia, France, and Germany have 7-9 nurses per 1,000 persons, in contrast to Bangladesh, with 0.1.

Even this survey is out of date, and understates the decline. In the last two years, with the blowout of the financial system, many thousands of positions have been eliminated. The U.S. lost over 10,000 health-care workers in 2008, and is losing this year at the same rate.

This comes on an already shrunken base. In 2000, the total U.S. public-health workforce numbered 448,000, which was 50,000 fewer than in 1980. In 1980, there were 220 public-health workers per 100,000 U.S. residents; by 2000, this had fallen to 158 per 100,000.

Now it is worse. A paper released in December 2008, by the Association of Schools of Public Health ([www.asph.org](http://www.asph.org)), “Confronting the Public Health Workforce Crisis,” points out that many of the remaining workers are at retirement age.

On April 27, Robert Petronk, executive director of the National Association of City and County Health Officials, told reporters that Federal funding has been cut 25% since 2005, for state and local preparedness for disasters such as a flu pandemic. Eleven states and the District of Columbia cut funding for public health services in FY 2008. In California, the Health Department is implementing a 10% budget cut, just as the governor has declared a state of emergency over the new flu. And the Obama Administration’s “American Recovery and Reinvestment Act” slashed \$700 million from public-health services.

Internationally, hospitals and facilities do not exist to cope with even seasonal flu, let alone a pandemic influenza. The number of community hospitals in the



EIRNS/Stuart Lewis

*During the flu epidemic of 2004, vaccinations were given at grocery stores throughout the United States. The WHO has now called for pharmaceutical companies to ramp up production of medicines to combat the A/H1N1 virus.*

U.S. fell from nearly 7,000 in the mid-1970s—built up under the 1946 Hospitals Survey and Construction Act (called “Hill-Burton”), down to under 5,000 today. This means fewer laboratories, diagnostic facilities, teaching positions, emergency departments, and so on.

During the first week of the new flu, U.S. emergency rooms were hit by a surge of visitors, often double their usual numbers. In San Bernardino, Calif., the Loma Linda University Hospital put a big tent up in their parking lot, to serve as the emergency room for the crowds.

The availability of hospital systems in poor countries is all but non-existent, but military-style logistics can provide interim anti-disease treatment while national infrastructure is built over time.

**The third necessity for public health, is advanced medical R&D.** What’s required is an Apollo Mission-style approach to the biophysics of infectious diseases, and other questions of health. Moreover, laboratory capacity for epidemiology work of all kinds, is shrinking. The U.S. Association of Public Health Laboratories in February said that 80% of the labs they surveyed have cut back their operations since January 2008, because of funding reductions.

## Water, Power, Sanitary Infrastructure

*What is required is to mobilize interim water supply measures along military lines, to provide the chemicals, transportation, tanks, and equipment for temporary sources of potable water; and, at the same time, launch water infrastructure projects, postponed for decades, to increase the “natural” water resource base for present and future use.*

An estimated 1 billion persons today lack safe drinking water, and 2.5 billion—a third of the planet’s population—lack water for sanitation. Considered on the crudest basis of volume of water available per capita, ratios in many parts of the world are below that needed for minimal personal use, and far below per-capita requirements that would reflect levels of water usage consistent with

modern economic activities of industry, agriculture, power production, and public health.

Under these conditions, no hygiene gimmick can curb the spread of today’s new influenza, or other infection.

The two modes of intervention for new infrastructure are large-scale desalination of saltwater, and large-scale diversion of water from bountiful areas, to water-scarce regions.

Large-volume water desalination and geo-engineering can solve all apparent water shortages. Cheap, plentiful electricity is the only precondition for high-tech desalination, and this requirement can easily be met through nuclear power.

In North America—the epicenter of the current flu pandemic threat—there were plans in the 1960s for continental-scale water diversion projects—the PHLINO/PHLIGON in Mexico to channel water to northern drylands; and the North American Water and Power Alliance (NAWAPA), to redirect water from Alaska/Yukon southward. Mexico had plans for 20 nuclear power stations; the United States had a full-scale nuclear commitment. The plans were dropped.

In this context of upgrading the conditions of life, sanitary measures to beat back disease vectors can

work: fighting water-borne diseases, parasites of all kinds, mosquitoes, ticks, and other insect transmitters, etc. Because of the decrease in concerted anti-disease action over the past 40 years, resulting from both the general economic decline, and the pseudo-environmentalist campaign against technology, there is today needless death and sickness from a range of bacteria, fungi, and parasites, as well as viruses. Pathogen threats (including HIV/AIDS, tuberculosis, malaria, and dengue) that could be minimized, are nevertheless present and dangerous across wide regions of human, animal, and plantlife populations.

One policy shift of recent years that must now be reversed, is the reliance on selective, privately funded disease-fighting initiatives, away from the historical principle of favoring policies to support growing national economies that would be able to carry out public-health functions for their own populations. One of the most prominent of these private operations is the Bill and Melinda Gates Foundation, as the funder of first and last resort.

Instead, it's time to end globalization and build up national economies to restore life and health.