

Reconstruction of a Mass Hysteria: The Swine Flu Panic of 2009 - DER SPIEGEL



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But then, after only four days, the boy recovered. His illness disappeared as quickly as it had started. It turned out to be nothing more than the flu, and the people of La Gloria soon forgot about it.

'Boy Zero'

It wasn't until several weeks later that a laboratory in Canada tested a mucosal smear taken from the boy. The results made him famous. Edgar didn't have an ordinary flu, but had been infected with a new kind of pathogen, the swine flu virus. Edgar went down in history as *niño cero*, "boy zero," the first person to fall ill with the new plague.

The Mexican boy's infection was mild, like an overwhelming majority of the millions of cases that would occur worldwide in the coming months. The new virus would probably have attracted far less attention if it hadn't been for modern molecular medicine, with its genetic analyses, antibody tests and reference laboratories. The swine flu would have conquered the world, and no doctor would have noticed.

Fukuda and Cox had once worked together to fight the Asian bird flu. Both scientists remembered all too well how the aggressive killer surfaced in Hong Kong. A third of those infected with the virus died. To this day, Fukuda retains the fear that a similar pathogen could permanently make the jump to humans.

So the potential significance of the call was clear to Fukuda: the start of a devastating pandemic, in which, according to WHO estimates, between 2.0 and 7.4 million could die -- assuming the pandemic was relatively mild. But if the new virus proved to be as aggressive as the one that triggered the Spanish Flu in 1918, the death toll could run to the tens of millions.

"The first thing I thought was: We have to act quickly," says Fukuda. He immediately called WHO Director-General Margaret Chan, another veteran of the fight against avian flu. As Hong Kong's director of health at the time, she was the one who ordered the slaughter of all chickens in the city.

IT specialist Jered Markoff, in charge of the WHO's Strategic Health Operations Center -- also known as the SHOC room -- received a call at 3:15 a.m. Markoff activated the SHOC room from home: Using his personal computer, he issued the necessary commands to pull out the 15 monitors hidden in tables, start up the computers and switch on the large projection screens attached to the walls. Then he drove to WHO headquarters.

For the next few months, the SHOC room would serve as the center of the worldwide battle against H1N1, the swine flu virus. It was staffed 24 hours a day with three rotating shifts of WHO employees, who used videoconferencing equipment to communicate with doctors, scientists, politicians and industry representatives around the world. News, charts, maps and statistics were constantly popping up on the projection screens.

The situation was still confusing. At first, there was talk of several dozen dead in Mexico, but soon the authorities adjusted that number downward to seven. The epidemic experts were moving in a scientific gray area, filled with contradictory information and many unanswered questions. How fast does the virus spread? Which people are at the greatest risk? Does the normal influenza vaccine provide protection? Most of all: Just how dangerous is the new virus?

To obtain the best possible assessment, WHO Director-

General Chan convened the "Emergency Committee," a group of 15 carefully selected experts from around the world, for a first teleconference. "In that early phase, we still had too little information," says Australian John Mackenzie, the chairman of the committee. "But everything we knew at the time sounded alarming."

Worst-Case Scenarios

Does this mean that a very mild course of the pandemic was not even considered from the start? At any rate, efforts to downplay the risks were unwelcome, and the WHO made it clear that it preferred to base its decisions on a worst-case scenario. "We wanted to overestimate rather than underestimate the situation," says Fukuda.

Mackenzie, another veteran in fighting epidemics, is accustomed to smelling trouble around every corner. He worked for the Australian Biosecurity Cooperative Research Centre for several years, where he was responsible for protecting Australia from new infectious diseases. When he left the Centre in 2008, he issued an emphatic warning about the next influenza pandemic.

Most of all, however, it was probably the horrific images of the avian flu that distorted the experts' view of the idiosyncrasies of the new pathogen. The vision of a highly aggressive virus had become lodged in their minds, a virus that, once it began to spread, would lead to catastrophe.

The media also did its part in stoking fears. SPIEGEL, for example, had reported at length on the avian flu. Now it devoted a cover story to the new "global virus," a story filled with concerns that the swine flu pathogen could mutate into a horrific virus.

The pharmaceutical industry was particularly adept at keeping this vision alive. Manufacturers of flu remedies and vaccines even funded a group of scientists devoted solely to this issue: the European Scientific Working Group on Influenza, which regularly held conferences and meetings of experts. The lobbying group was headed by Albert Osterhaus of the Erasmus Medical Center in Rotterdam, who also happened to be one of the WHO's most influential advisors on influenza vaccines.

Together with Osterhaus, Johannes Löwer was asked to provide Director-General Chan with recommendations on the subject of swine flu vaccination. The then president of the Paul Ehrlich Institute (PEI), which specializes in vaccines, is now convinced that he and his fellow experts were probably too strongly influenced by the horror scenarios swirling around the avian flu. "We expected a real pandemic, and we thought that it had to happen. There was no one who suggested re-thinking our approach."

April 27, 2009: The WHO raises its pandemic warning to phase 4, meaning it has discovered human-to-human transmission of the virus in at least one country.

April 28, 2009 : The first seven suspected cases of swine flu are reported in Germany.

April 29, 2009: The WHO raises its warning to phase 5, the last stage before a pandemic. Influenza researchers are elated. "A pandemic -- for virologists like us, it's like a solar eclipse in one's own country for astronomers," says Markus Eickmann, director of the BSL-4 high-security laboratory in the central German city of Marburg .

April 30, 2009 : Egypt begins killing all domestic pigs in the country. French actress and animal rights activist Brigitte Bardot begs President Hosni Mubarak to stop the mass slaughter, but her appeals are unsuccessful.

May 4, 2009 : In Mexico , football matches in the country's four highest-ranking leagues take place without spectators. The legislature in Germany 's western state of Saarland imposes a ban on kissing as a form of greeting.

June 10, 2009 : The WHO has received reports of 141 swine flu deaths. The majority of the victims have serious pre-existing conditions. In most cases, however, the course of the infection is mild. A recovered patient tells a German daily newspaper, the Süddeutsche Zeitung, "My main problem was finding someone to go shopping for me."

June 11, 2009 , WHO Headquarters

The Emergency Committee convened for another

teleconference. This time the discussion focused on critical questions: Should the WHO raise its warning to phase 6? Was the swine flu a pandemic?

The 15 experts scattered around the world debated for hours. After the meeting, Chan told the press that the virus was unpredictable and unstoppable. It was official: An influenza pandemic had broken out for the first time in 41 years.

"I think we did everything right," committee chairman Mackenzie says, looking back. Strictly speaking, his statement is correct.

According to the regulations, phase 6 becomes effective when a new virus is spreading uncontrollably in several regions of the world. The regulations say nothing about the severity of the disease.

In fact, the vast majority of experts on epidemics automatically associate the term "pandemic" with truly aggressive viruses. On the WHO Web site, the answer to the question "What is a pandemic?" included mention of "an enormous number of deaths and cases of the disease" -- until May 4, 2009. That was when a CNN reporter pointed out the discrepancy between this description and the generally mild course of the swine flu. The language was promptly removed.

Apparently German infectious disease experts also misunderstood the official WHO definition of phase 6. An

influenza epidemic, according to Germany's national pandemic plan -- updated in 2007 -- is "a long-lasting, international situation involving substantial loss and causing such lasting damage as to jeopardize or destroy the livelihood of large numbers of people."

The situation on June 11, 2009 did not correspond with these descriptions. Critics were already asking derisively whether the WHO had any plans to declare the latest outbreak of the common cold a pandemic. "Sometimes some of us think that WHO stands for World Hysteria Organization," says Richard Schabas, the former chief medical officer for Canada's Ontario Province.

'Fine-Tuning' the Definition of Pandemic

When Chan reached her decision, she knew that dozens of countries, including Great Britain, China and Japan, had warned against prematurely raising the warning phase to 6. Hong Kong's health minister had said: "The system of pandemic levels needs to be revised."

Epidemiologist Mackenzie says, in retrospect: "We need to fine-tune phase 6 so that the severity of the disease is also taken into account." In May 2009, even the WHO itself considered amending the criteria in the way Mackenzie suggested, but then it changed its mind.

The warnings faded away. Why? Because regulations are simply regulations? Because health officials decided to err on the side of caution? One thing is clear, though. A

party with strong connections in Geneva had a strong interest in phase 6 being declared as quickly as possible: the pharmaceutical industry.

"The pharmaceutical industry did not influence any of our decisions," says Fukuda. But in mid-May, about three weeks before the swine flu was declared a pandemic, 30 senior representatives of pharmaceutical companies met with WHO Director-General Chan and United Nations Secretary General Ban Ki Moon at WHO headquarters. The official reason for the meeting was to discuss ways to ensure that developing countries would be provided with pandemic vaccine. But at this point in time the vaccine industry was mainly interested in one question: the decision to declare phase 6.

Everything hung on this decision. At stake was nothing less than a move to supply large segments of the world's population with flu vaccine. Phase 6 acted as a switch that would allow bells on the industry's cash registers to ring, risk-free. That's because many pandemic vaccine contracts had already been signed. Germany, for example, signed an agreement with the British firm GlaxoSmithKline (GSK) in 2007 to buy its pandemic vaccine -- as soon as phase 6 was declared. This agreement could explain why Professor Roy Anderson, one key scientific advisor to the British government, declared the swine flu a pandemic on May 1. What he neglected to say was that GSK was paying him an annual salary of more than €130,000 (\$177,000).

In mid-June, 2009, the head of GSK's German division urged Health Minister Ulla Schmidt "to confirm the delivery stipulated under the contract as soon as possible." He also asked the health minister of the eastern state of Thuringia to "promptly provide us with binding confirmation of the contractually stipulated orders of the German states." Similar letters were sent to other German states.

July 4, 2009 : It's revealed that Rupert Grint has contracted swine flu. "At first I thought I was going to die," says the actor, who portrays the character Ron Weasley in the "Harry Potter" films, "but then I just got a sore throat."

July 14, 2009: In Germany , 727 people are officially infected, but no deaths have been reported.

August 2009: The Australian flu season has ended. In the absence of a vaccine, only 190 people have died by the end of the season -- a significantly smaller number than in a normal flu season.

Aug. 29, 2009 : A SPIEGEL survey shows that only 13 percent of Germans want to be vaccinated.

Sept. 7, 2009 , Offices of the State of Thuringia , Berlin

A special summit on Berlin's Mohrenstrasse. The state health ministers arrived, one after another. The purpose

of the meeting was to decide whether more vaccine should be ordered. Everyone knew it was election season in Berlin, and Ulla Schmidt had made it abundantly clear that "everyone who wants to be vaccinated can be vaccinated. I expect that the states will live up to their responsibility." The minister was extremely careful not to create the impression that she was depriving the population of anything.

It was a warm, late summer afternoon, but the mood at the meeting was icy. "Ahead of the crisis, the federal government placed us under massive pressure to order more vaccine," says Dietrich Wersich, a member of the conservative Christian Democratic Union (CDU) and Hamburg's health senator. "But it was clear to all of us that there was very little willingness within the population to get vaccinated."

Meanwhile, a debate had erupted over whether Germany had chosen the wrong vaccine, Pandemrix. It contained a new type of agent designed to boost its effectiveness, known as an adjuvant, which had never undergone large-scale human trials in connection with the swine flu antigen. Were millions of people about to receive a vaccine that had hardly been tested? "This is a large-scale experiment on the German people!" warned Wolfgang Becker-Brüser, publisher of the medical journal *Arznei-Telegramm*.

In theory, says former PEI President Löwer, it would have

been possible to approve an adjuvant-free swine flu vaccine in Germany. But the contracts for Pandemrix had been signed in 2007, and they came into effect automatically when the WHO decided to declare phase 6. Germany was in a bind.

The disgruntled state health ministers pointed out that the 50 million vaccine doses that been ordered had already cost the states half a billion euros. Was it truly necessary to order more, they asked?

The ministers felt pressured from all sides. On the one hand, the media were stoking fears of the virus. The German tabloid newspaper *Bild*, in particular, was printing new tales of horror almost daily. On the other hand, the pharmaceutical companies were upping the pressure and constantly setting new ultimatums.

'Miserable Advice' from the Health Institutes

The ministers attending the meeting in Berlin still remembered all too clearly how drug maker Roche had urged the German states to buy the flu medication Tamiflu. On April 30, at 3:28 p.m., the ministers had received an email from the Thuringia health ministry, under the subject line "Urgent: Roche offer." It read, "Roche has just informed us that it still has an inventory of 180,000 packages of Tamiflu. They are making this inventory available to the states until 4:30 p.m. today. Otherwise the inventory will be used to service other

inquiries from wholesalers, etc." In fact, however, there had been no reports of any serious supply bottlenecks at any time.

The infectious disease experts at the Robert Koch Institute (RKI) and PEI were also applying pressure to the state health ministers. "We felt that we were getting miserable advice at the time," says Social Democrat Hermann Schulte-Sasse, a member of the Bremen State Council. "The institutes were no help to us in terms of preventing scaremongering."

Instead, the RKI and PEI were coming up with new alarming numbers. In June, the experts warned that Germany could expect up to 80,000 deaths, and "€15 billion to €45 billion in lost production."

One of the health ministers at the Berlin meeting was outraged that the researchers had not told them about new studies that suggested a single vaccination appeared to be sufficient for the swine flu. If it was true, the states stood to save a lot of money, because the 50 million doses they had already ordered would be enough for 50 million people, not a mere 25 million people as described in the original plan. Ordering more vaccine would be unnecessary.

All eyes were on RKI President Jörg Hacker. "The random samples have been too small up to now," he said, seeking to downplay the issue. It was a situation for which Hacker

-- a scientist, not a politician -- was poorly prepared.

If a single dose was sufficient, it meant not only that the states could manage with a lot less vaccine; it was also a strong indication that the population was by no means at the mercy of the virus. The dangers of swine flu, in other words, may have been far smaller than previously thought.

But the all-clear signal didn't reach anyone in the room. The ministers reluctantly agreed to keep an option to buy 18 million more doses of vaccine from yet another pharmaceutical company, Novartis.

Oct. 9, 2009: Wolf-Dieter Ludwig, an oncologist and chairman of the Drug Commission of the German Medical Association, says: "The health authorities have fallen for a campaign by the pharmaceutical companies, which were plainly using a supposed threat to make money."

Oct. 21, 2009: A BILD newspaper headline, printed in toxic yellow, warns: "Swine Flu Professor Fears 35,000 Dead in Germany !" The professor's name is Adolf Windorfer, and when pressed, he admits that he has received payments from the industry, including GSK and Novartis. Next to the BILD headline is an ad for the German Association of Pharmaceutical Companies.

Nov. 28, 2009 : The swine flu begins to subside in Germany . Hardly anyone wants to be vaccinated.

Dec. 8, 2009 : English road crews run out of grit to treat the country's icy roads. Paul Flynn, a Labour MP in the British Parliament, proposes using the government's unused Tamiflu pills instead. A study by the Cochrane Collaboration has shown that the flu medication was relatively ineffective.

Jan. 7, 2010: RKI President Hacker, warning of a new wave of the flu, says: "The vaccine is still needed because the virus is still here."

Jan. 26, 2010: Wolfgang Wodarg, a member of the German parliament, tells the European Council in Strasbourg that "millions of people worldwide were vaccinated for no good reason." According to Wodarg, the WHO's classification of the swine flu as a pandemic have earned the pharmaceutical companies \$18 billion in additional revenues. Annual sales of Tamiflu alone have jumped 435 percent, to €2.2 billion.

March 5, 2010 : German states propose selling 10 million doses of surplus doses of the swine flu vaccine Pandemrix to Pakistan .

Early March 2010, WHO Headquarters

The SHOC room is now being used for other emergencies, including the coordination of aid for earthquake victims in Haiti. But often the room is empty.

The mood at the WHO has grown less tense. The press

office is no longer staffed around the clock. The tent set up for journalists in the employee parking lot is gone. IT specialist Jered Markoff no longer receives phone calls in the middle of the night. And influenza expert Keiji Fukuda is happy to spend time on his hobby -- playing cello -- once again.

What was this pandemic? Was it all just "good practice for an emergency," as WHO advisor and industry lobbyist Osterhaus puts it? Did the authorities do everything right, as Australian epidemiologist John Mackenzie insists?

Certainly not. No one at the WHO, RKI or PEI should feel proud of themselves. These organizations have gambled away precious confidence. When the next pandemic arrives, who will believe their assessments?

Perhaps they should have followed the example of Ewa Kopacz, the Polish health minister. The 53-year-old physician, a member of the free-market Civic Platform, has a reputation for courting controversy.

When she stepped up to the podium in the Polish parliament, the Sejm, during its vaccine debate, she wore a bright-red dress -- her combat gear. "As a doctor, my first obligation is to harm no one," she said. For this reason, she added, Poland was not going to follow in the rest of Europe's footsteps. "We will not purchase any vaccine against the swine flu," Kopacz told the Sejm.

Politicians grumbled, but the health minister stood her

ground. "Is it my duty to sign agreements that are in the interest of Poles, or in the interest of the pharmaceutical companies?" she asked.

Today, Europe can admire her steadfastness. About 170 people died of the swine flu in Poland, a much lower number than the annual death toll attributable to the seasonal flu.

A 1.3-meter (4'3") bronze statue weighing 70 kilograms now stands on the village square in La Gloria, in the mountains of Mexico -- a likeness of Edgar Hernandez, the miracle boy who first defeated the swine flu.

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