

COUNCIL *on* FOREIGN RELATIONS

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Dear Friends and Colleagues;

Happy 2009!

As you return from holidays and face mountains of unread emails and snail-mail, the Council on Foreign Relations' Global Health Program begs your attention for a few moments. Many challenging events have transpired over the last six weeks, and the United States is just days away from swearing in a new president and vice president.

A special reminder: On January 22nd, we will release a new Council on Foreign Relations Action Report, entitled "The Future of Foreign Assistance amid Global Economic and Financial Crisis: Advancing Global Health in the U.S. Development Agenda." The release will take place in CFR's new Washington, D.C. office, in an event featuring leading experts and political figures. If you are interested in further meeting details or in receiving a copy of the report when it is completed, please contact the Assistant Director of the Global Health Program, Kammerle Schneider at kschneider@cfr.org.

In anticipation of a fast-paced series of changes unfolding on the international stage, the Global Health Program would like to bring to your attention the following topics:

- Mugabe's Cholera;
- Obama Transition Team on Global Health;
- Battle Brews over Foreign Assistance and Global Health Spending;
- Ebola Returns;
- The H5N1 Comeback;
- Controversy over the Real Extent of Child Immunizations;
- Measles;
- Can We Treat Our Way Out of HIV?
- What's missing in "Right to Health"?
- China's Melamine Scandal Continues.

Mugabe's Cholera

It is with a very heavy heart that we discuss Zimbabwe, which was, in the not terribly distant past, a spectacularly beautiful country, over-flowing with food, happy children, and hope. Today, in contrast, it is a place rife with terror and disease.

The cholera epidemic now raging across the entirety of Zimbabwe, and spilling into neighboring nations, began in August 2008, about five weeks after the opposition Movement for Democratic Change (MDC) party declined to take part in a late June run-off election. Robert Mugabe and his party, ZANU-PF, lost in national elections in April. But the winner, Morgan Tsvangirai, and the MDC failed to obtain a large enough majority to compel Mugabe to step down. By June it was clear that ZANU would not allow run-off re-elections to be held without wielding their batons, firing their guns, and torturing MDC members. Tsvangirai, who was hospitalized after one such beating, announced the MDC would not participate in June elections.



That was June. Everybody in Zimbabwe knew that the MDC swept the vote in Zimbabwe's largest cities, easily taking more than 80 percent of votes cast in the Harare townships. Among the places giving the MDC clear majorities in the spring elections were Harare's Budiro slum, Beitbridge in Matabeleland and Mudzi in Mashonaland.

Not coincidentally, electrical power was "mysteriously" cut off to these very areas that had voted pro-MDC. Electricity today, according to multiple reports, is intermittent, at best; in the targeted areas it is entirely nonexistent. Without electricity, water pumping and filtration stations cannot function, sewer pumps break down, and hospitals cannot function. Compounding the impact of shutting off the power, chronic shortages of petrol and inflation so spectacular that currency obtained at 10 a.m. is literally valueless by 3 p.m. the same day, have made gasoline scarce and unaffordable. Without transport, the sick cannot get to hospitals, garbage crews cannot clean up mountains of waste, and bottled water distribution is impossible.

Though the cholera bacterial epidemic started in August, it did not strike with fury until December, and now by most accounts has spun out of control with the arrival of the rainy season. By early December, the World Health Organization (WHO), UNICEF and a long list of humanitarian organizations were sounding alarms, and issuing chilling daily reports on illnesses and deaths. By December 9th, WHO was forecasting that the epidemic could sicken 60,000 people. Even worse, though modern cholera treatment renders 99 percent of

infections curable, official Zimbabwean accounts put their death rate at 5 percent; in places distant from the capital, Harare, upwards of 50 percent of known patients were dying.

Robert Mugabe, the dictator (since 1981), declared on December 11th that the epidemic was over.



Dec. 11 (Bloomberg) -- President Robert Mugabe said cholera “no longer exists” in Zimbabwe, a day after the United Nations health agency warned the number of people infected in the country’s outbreak may almost quadruple to more than 60,000.

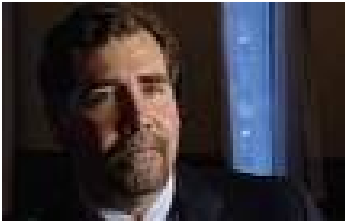
“Our doctors, with help from the Southern African Development Community and the World Health Organization, have quelled the outbreak,” Information Minister Sikhanyiso Ndlovu said in a telephone interview from Harare after Mugabe made the comment today in a nationally televised address.

A few days later, Presidential spokesman, Ndlovu, expressed shock that the world thought Zimbabwe’s epidemic was over, noting that Mugabe had been speaking in jest on December 11th.

Recent accounts are heartbreaking. On December 29th, the opposition newspaper *The Zimbabwe Times* reported, “The current outbreak is the largest ever recorded in Zimbabwe and is not yet under control. In fact, the epidemiological week ending 20 Dec 2008 saw more than 5000 new cases...”(<http://www.thezimbabwetimes.com/?p=9237>)

Another report on December 31st said that, “Cholera has hit Zimbabwe's prisons with more than 200 inmates said to have died in the country's prisons over the past week alone...More than 20 inmates have died in Masvingo Remand Prison over the past 5 days. A cholera treatment camp has since been established at the prison. At Mutimurefu Prison also in Masvingo Province 9 inmates succumbed to the epidemic while at Hwahwa prison in the Midlands Province 16 are reported to have died.” According to human rights experts, most prisoners are likely to be jailed for political reasons, or for committing petty crimes to obtain food.

In his Christmas pastoral letter to Zimbabwean Anglicans, the Bishop of Harare, Dr. Sebastian Bakare wrote: "Cholera, hunger, HIV/AIDs, lack of health care, homelessness, unemployment, poverty, corruption, kidnappings, callousness, harassment, you name it. . . All these challenges rob us of an opportunity to have a meaningful and purposeful life. As I write, some families are nursing their relatives who are suffering from the effects of cholera expecting them to die any time, others stay indoors, unable to come out from their houses because of the unbearable stench of sewage flowing in front of their doorsteps, while still



others are burying their dead. We hear of a horrific case where one family lost five children in 36 hours."

Dr. Chris Beyrer, of the Johns Hopkins School of Medicine, and colleagues from Physicians for Human Rights (PHR) inspected hospitals and fetid settings all over Zimbabwe during the week before Christmas. When the PHR team tried to fly out of Harare

on December 20th, they were surrounded by ZANU thugs. After a frightening stand-off, during which the doctors feared for their lives, the group fled Zimbabwe by car, leaving behind some laptops and evidence they had compiled. The Mugabe government released a statement on December 21st claiming the PHR team was made up of "fake doctors" from Britain ("the imperialists" in Mugabe-speak). In truth, the PHR team was comprised of MDs, most of who were from the U.S. (and none were British). Beyrer spoke at length with the Global Health Program's Laurie Garrett on January 2nd, previewing some of the findings that will be detailed in a lengthy PHR report soon to be released. "What we saw, which was really striking to me," Beyrer said, "was that the *entire* healthcare system has shut down! I have never seen such a widespread closure anywhere in the world, and I have been in some tough places."

Indeed, Beyrer and colleagues just published a hard-hitting assessment of maternal and infant mortality in Burma, another exceptionally dangerous place to work.

(See: Mullany LC, Lee CI, Yone L, Paw P, Oo EKS, et al. (2008) Access to essential maternal health interventions and human rights violations among vulnerable communities in eastern Burma. PLoS Med 5(12): e242. doi:10.1371/journal.pmed.0050242

<http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0050242>)

Beyrer compares conditions inside Burma and Zimbabwe, finding they share elements of government-backed terror: informers for the government are omnipresent; it is difficult-to-impossible for opposition figures to organize; and, local people must face every day with courage.



"Our staff say that people are dropping dead in the streets from cholera," Caritas [Catholic charity] Secretary General Lesley-Anne Knight said on the organization's Web site. "They've witnessed people mixing cow dung with what's left of their food to make it go further. The poverty is at its most dehumanizing."

Zimbabwe has had endemic cholera, with small outbreaks since 2005. But until now, containment was never an issue. Beyrer insists the current dire change is, “Because Mugabe refused to give the pro-MDC municipalities any money, and eventually turned off the electricity and water. People who can afford it have private bore holes and generators and back-up solar batteries, so they have safe water. And that’s what all the top ZANU leaders have. But ordinary people – My goodness! When the water flows, for maybe an hour at 2am, they fill their tubs and sinks and jugs and then pray they have enough until the next time some water drips their way.”



Beyrer was shocked by conditions in the pro-MDC, urban slums, where hundreds of thousands of people are trying to survive without water, sewage systems, transportation or reliable electricity and communications. Food is scarce, and inflation rates are so high that a loaf of bread that is affordable in the morning is out of financial reach by afternoon.

In a Harare slum that is home to 300,000 people, Beyrer witnessed what he describes as, “The worst conditions I have seen anywhere in the world.” The strongly pro-MDC slum is the site of Zimbabwe’s largest cholera outbreak, where whole families have perished. There, Beyrer said, “There is no running water at all, and all the sewage pipes are broken. Water mains reek from the stench of human waste.

“And the most amazing, horrible thing...the people have had to make walls out of piles of uncollected trash and human waste, because of course the government isn’t collecting garbage any more, either. And these awful, fetid walls are serving as barriers to hold back rivers of sewage and shit that flows down the drainage ditches.”

The rainy season came late to Zimbabwe this year, striking like a monsoon shortly before Christmas, sending water roaring down those waste-laden ditches and drainage canals. “Cholera,” Beyrer insists, “is a symptom of the breakdown in municipal services. It is ZANU versus the pro-MDC city councils.”

In late November, physicians and nurses began staging protests over conditions in the public hospitals, which lack most basic supplies, water, electricity, working toilets – all, in the midst of a cholera epidemic. The government responded with brutality, sending ZANU men and military personnel to beat and arrest the physicians and nurses. Beyrer asserts that the worst beatings were meted out on individuals who wore white lab coats. Realizing conditions inside

the hospitals would remain hopeless, the healthcare workers abandoned their posts, shutting the facilities down all together by Christmas.

The PHR team visited both abandoned public hospitals and functioning private ones. The private hospitals will not admit patients without up-front payment – in U.S. dollars. The PHR team watched the families of ailing individuals scramble madly in pursuit of U.S. currency. The PHR team was not granted the right to enter the designated cholera hospital in Harare: “We met with government officials who told us if we went there, we would be arrested,” Beyrer said. Healthcare workers told the PHR team that they had not been paid since last April, and that their salaries, were they paid, would not cover the cost of a single bus ride to work, due to inflation.

You can see some of the conditions contributing to cholera in Zimbabwe on The Guardian’s website:

<http://www.guardian.co.uk/world/2008/dec/09/zimbabwe-cholera-crisisthe-cholera-epidemic-in-zimbabwe-has-killed-almost-600-people>

and

The PHR report on Zimbabwe will be launched on January 13th

Details are at the end of this update

Every day, WHO posts new numbers of reported cholera cases and deaths in Zimbabwe on its website, but with the caveat that transport and communications systems have so deteriorated in the country that the numbers are certainly an underestimate. Beyrer says nobody really knows how large the country’s cholera epidemic is because the entire infrastructure for public health and disease reporting has collapsed. The numbers that are reported largely come from a few treatment centers run by outside humanitarian groups, such as the Red Cross and MSF. According to Zimbabwean officials, more than 1,700 have died since August, but humanitarian organizations say the toll has already exceeded 3,000.

None of those numbers indicate what is going on inside homes and villages where the people no longer try to get into hospitals. One possible indicator: UNICEF says school attendance nationwide in December was down 85 percent compared to December 2007.

Joke from Bulawayo, Zimbabwe: “I don’t know why people say our economy is collapsing. We have a vigorous export market – exporting cholera!”

Cholera has now spread from Zimbabwe to neighboring countries, largely by refugees. Estimates on the refugee tidal wave put the numbers at between 3 to 4 million people, or roughly a third of the population. UN agencies in December estimated that at least half of the remaining population requires emergency food assistance, which is a polite way of saying that they are starving.

At least 8 provinces in neighboring Mozambique now report cholera, with the total number of cases approaching 1,800.

To Zimbabwe's west, Botswana has officially reported 8 cases of cholera to WHO.

Malawi has reported nearly 300 cases, with a 4.4% death rate.

South Africa has seen about 1,500 cases, with a 1% death rate.

And to Zimbabwe's north, Zambia has reported about 370 cholera cases.

Apparently unrelated cholera outbreaks are also unfolding in Kenya, Congo-DR, Guinea Bissau, and Angola.

Finally, inside Zimbabwe, the officially reported numbers, according to WHO:

Zimbabwe: Daily cholera update, 6 Jan 2009

Highlights of the day:

- 1080 cases and 21 deaths added today (in comparison 675 cases and 59 deaths yesterday)
- 60 percent of the districts affected have reported today (33 out of 55 affected districts)
- 88.7 percent of districts reported to be affected (55 districts/62)
- All 10 of the country's provinces are affected

The current numbers are now at 35 330 cases with 1753 deaths.

Obama Transition Team on Global Health

On January 20th an estimated 2 million people will brave wintry weather to stand in the Washington Mall to witness the Inauguration of Barack Hussein Obama as the 44th President of the United States. This week the 111th Congress convenes, seating many new political leaders and giving Obama's party strong majorities in both houses.

Change is in the air.

Perhaps the only bustling real estate market in our otherwise dismal economy is in the Washington, D.C. area, where Republicans are selling off homes and condos and Democrats are buying. With great anticipation and some growing concern, the Global Health Program is eyeing announced appointments or nominations to key Executive Branch positions, and the evolving power centers on Capitol Hill.



On the Obama team four announced positions offer clues to the Obama administration's priorities for global health and development. Nominated for Secretary of Health and Human Services is former Senate Majority Leader **Tom Daschle**, a liberal-but-pragmatic Democrat from South Dakota. Daschle's key interests are domestic healthcare-related, and he will not only serve as Secretary, but will also chair a White House commission that will redesign the U.S. health system.

Having been specifically targeted by the anthrax mailings of 2001, Daschle has strong feelings about the competence (or lack thereof) of agencies that played a role in that investigation. But Daschle has not said anything regarding global health issues, the World Health Organization or national security links to pandemics and other health paradigms. Therefore, we must characterize Daschle's global health plans as *unknown*.

Daschle is focused on domestic healthcare reform and financing, and shows little interest in anything else HHS is responsible for, remarkably, even bioterrorism and catastrophic event planning. It is not clear at this writing whether or not Daschle will place an expert on preparedness, bioterrorism, and emerging diseases in a deputy or undersecretary slot inside HHS, as was the case for both the Bush and Clinton administrations.



Three key appointments that Daschle will make may offer a glimpse of how he and Obama plan to engage HHS in the worldwide health picture: Director of the Centers for Disease Control and Prevention (CDC), Surgeon-General, and Director of the HHS Office of Global Health Affairs (OGHA). Throughout the Bush years, the CDC has undergone a radical and highly controversial transformation, and it is not clear at this time how either Daschle or Obama view the future of that agency. It is known that among those advising the administration regarding the general outlines of directions for CDC is its former director, **Jeff Koplan**, though he is not a candidate for reappointment to the director position. Though Koplan, like Daschle, lived through the events of 9/11 and the anthrax mailings, he is pushing for a CDC that looks inwards and is focused on domestic health. He advocates that the CDC tackle problems like cancer prevention, obesity, and ways to improve healthcare delivery. There would seem to be little room for scientific innovation, epidemic control, international health activities, or global disease surveillance in such a vision. Global health and infectious diseases advocates have been holding out hope that either **Dr. David Heymann** (now Deputy Director of WHO) or **Dr. Helene Gayle** (now CEO of CARE) would be named to the job, but Koplan reportedly favors naming a domestic-focused chronic diseases physician to the post.

The Surgeon-General's office was all but destroyed under the Bush administration, its staff and influence whittled down to nothing more than a figurehead. Long gone are the days of the



powerful, often combative, Dr. C. Everett Koop during the Reagan Administration. Daschle and the White House will need to decide not only who should fill the post, but what *exactly* a Surgeon-General in a 21st century America should do. This week the Transition Team confirmed that CNN medical reporter **Dr. Sanjay Gupta** will be named to the position. Neurosurgeon Gupta is young (39), and acts as something of a good-health booster. He has no training in public health or preventive medicine, traditionally crucial for the SG job. His nomination signals that Obama wants the SG to act as a populist health promoter, taking on issues such as diet and exercise. He's no Koop, or Clinton's SG David Satcher. It's hard to imagine Gupta heading up something like "Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public

Health Service," which boldly confronted the tobacco industry in 1964. But then again, this is 2009, and America is overweight and fixated on celebrities. Perhaps in the Obama calculus, what America now needs is a fit celebrity surgeon to set an example, and to, as managed care facilities put it, "encourage Americans to take responsibility for their own health."

Of the positions Daschle needs to fill, the one least known to the general public (but was most powerful in the Bush Administration) is the director of OGHA. For 8 years, **William "Bill" Steiger** has filled that position, wielding tremendous – unprecedented – influence over all aspects of U.S. global health activities. From casting critical votes in selections of directors for WHO, UNAIDS, and the Global Fund to deciding details about overseas CDC activities and U.S. support for specific disease campaigns, Steiger has held sway. It is unclear at this time how Daschle and the Obama Transition Team view the OGHA, what sort of mission they envision for its future and who might be appointed to the position. One name that has come up is that of international health law expert, **David Fidler**, a University of Indiana law professor who has played a role in crafting or critiquing every major global health instrument, from the Biological Weapons Convention to the International Health Regulations. Fidler is highly regarded in international health circles, but not well known to domestic health leaders.

President-elect Obama has also announced appointment of Nobel laureate, **Dr. Harold**



Varmus, to his science advisory team. An expert on oncogenes and genetic mechanisms of cancer cell transformation, Varmus headed the boom-boom years of the National Institutes of Health under Bill Clinton. Since then he has served as president of the prestigious Sloan-Kettering Memorial Cancer Center in New York City and chaired the Institute of Medicine committee that shortly before Christmas released its report on the future of U.S. global health efforts. (*See below for more on that report.*) It is assumed that Varmus is weighing in on NIH and global

health appointments, perhaps including the HHS positions described above. Varmus has long voiced the opinion that little valuable science is executed by the CDC, and spoke out angrily about the Bush administration's devaluing of empiricism and scientific evidence in its policy and decision-making processes.

It is also widely reported that the Obama team will soon announce **Dr. Francis Collins** as the new director of the National Institutes of Health (NIH). We expect this news, if confirmed, will be greeted enthusiastically in the scientific community, as Collins is much admired for his years leading the Human Genome Project. Collins stepped down from that post in May, and was expected to return to his professorial post at the University of Michigan in Ann Arbor. George Bush awarded Collins the Presidential Medal of Freedom in 2007, in recognition of his leadership over hundreds of laboratories worldwide that teamed up to create the first genetic map of the human genome. Global health advocates may be pleased to know that Collins is a strong supporter of international collaborative research, and has demonstrated an ability to lead bold scientific initiatives.



A first order of business for the new NIH Director should be acetyl nitrile, a chemical used in DNA and RNA synthesis. It's gone. Poof. Scientists can't find it. This compound seems to be a victim of the global financial crisis, as it is produced in China. Nobody seems to be able to obtain it, and therefore virtually all PCR, genetic identification, DNA and RNA research is coming to a halt. Molecular biologists are distressed, and hundreds of laboratories are affected, but it doesn't seem that this obvious crisis has garnered any government advocacy or concern. For those unfamiliar with this chemical, imagine a compound that every DNA sequencing and amplification device in the world needs, from "C.S.I." forensics to human genome studies.

Perhaps most critical to the future of U.S. global health policy will be Senator **Hillary Clinton**, Obama's choice for Secretary of State. As First Lady and Senator, Clinton has long been an outspoken advocate for international assistance efforts, particularly those aimed at maternal and infant survival, HIV/AIDS, malaria, child health, and vaccination and improving the health and education of girls. Clinton has reportedly signaled to President-elect Obama that she wants the Secretary of State's office to play a pivotal role in foreign aid. Exactly what that role might be is an evolving debate, related to what sort of restructuring the 111th Congress and Obama administration choose to give to Official Development Assistance (ODA), PEPFAR, and the overall foreign assistance mission. *(As noted above, the Council on Foreign Relations will weigh in with its recommendations on this matter on January 22nd. Stay tuned.)*



During the 8 years of the Bush administration, much authority over global health and development shifted directly to the Office of the Secretary of State, in a scheme aimed at “democracy-building” under Condoleeza Rice. The influence and budget of the U.S. Agency for International Development diminished radically, and new Bush initiatives (PEPFAR, Millennium Challenge Corporation and the President’s Malaria Initiative, for example) emerged. Nominee Clinton will have a deciding voice in changing the architecture of foreign assistance and the relative authorities of these various programs and agencies.



Signaling her concern that the State Department have clear control over its budget, and that it play a strong role in reshaping the global economy, Clinton has announced her intention to appoint financial whiz **Jacob Lew** to a newly created advisory position in her office. Lew ran the Office of Management and Budget during the Clinton Administration, and ranks among a handful of people who actually comprehend the U.S. government’s budget process.

Lew is known to favor efforts to protect the budgets of global health and foreign assistance programs, but also has a deeply sober view of the fiscal crisis facing the U.S. and of the government’s need to reduce spending.

Clinton’s influence looks to be far more expansive than perhaps any Secretary of State since Henry Kissinger, as Obama seems to be filling his administration with people she knows well, who worked with Bill Clinton’s administration. If that trend extends to all of the health-related and foreign assistance appointments, the best way to forecast appointments may be to look at who filled the jobs from 1992-2000. It’s almost as if the Clintons were playing a game of musical chairs with the same cast of characters, though they are landing on different seats this time.

Two as of yet unfilled positions that carry global health implications are those of Commissioner of the Food and Drug Administration (FDA) and the White House Trade Policy Advisor. The FDA is in a shambles, in desperate need of leadership that can both address its internal morale crisis and a legacy of problems in the U.S. pharmaceutical industry. Internationally the FDA’s role has grown increasingly important amid mortal Chinese food and drug contamination incidents, problems with overseas generic drug manufacturers and staggering scientific questions regarding safe and efficient drug approvals for new types of products. In that latter category, the new FDA leadership will need to determine how to verify the safety of nanotechnologies, stem cell-derived products, cell-based vaccine technologies and a backlog of anti-bioterrorism related products.

Two names reportedly at the top of Obama’s list are former New York City Health Commissioner, **Dr. Margaret Hamburg**, and Baltimore Health Commissioner, **Dr. Joshua Sharfstein**. On January 8th, a group of nine current FDA scientists submitted a scathing assessment of the agency to the Obama Transition Team, describing it as “fundamentally broken”. The scientists’ letter describes the extraordinary pressure put on them by Bush-appointed FDA officials and managers, insisting that the scientists make their science

conform to pharmaceutical industry needs. The letter, excerpts of which appeared in the *Wall Street Journal*, paints a picture of corruption, pro-industry bias, flagrant conflicts-of-interest, and loss of credible capacity to protect public safety.

The FDA will need to work closely with the White House trade advisor, in hopes of overcoming World Trade Organization disputes over pharmaceutical patents versus compulsory licensing and generic manufacturing for poor country needs.



On Capitol Hill, a mixed cast of familiar and new faces will play deciding roles on the budgets related to global health programs, approval of key Executive Branch appointments and possible reshaping of the architecture of U.S. foreign assistance. Several individuals will be critically influential, including **Senator John Kerry** (now Chair of the Senate Foreign Relations Committee), **Representative Howard Berman** (now heading the Foreign Operations committee in the House), **Senator Richard Lugar** (a widely respected Republican foreign affairs expert who may play a critical role in bipartisan initiatives), **Representative Henry Waxman** (now heading the House appropriations committee, and a long time ally of global health efforts and fights against HIV/AIDS), **Representative Nita Lowey** (an outspoken advocate of foreign assistance spending), and **Senator Patrick Leahy** (who has tirelessly supported global health efforts from his seat on the Foreign Relations Committee).



In the coming weeks, the Obama Administration will announce a series of appointments that are crucial to the future of global health, specifically, and foreign assistance overall. We will also learn just how aggressively Obama wants to address restructuring of foreign assistance. During this time of transition, the most crucial individual is another Clinton Administration veteran, **Gayle Smith**, a Senior Fellow at the Center for American Progress.

During the Clinton Administration, Smith served as a Special Assistant to the President and oversaw African affairs at the NSC. Smith's twenty year career also included work as a journalist, covering wars and policy issues in Africa. She is a tough-talking, pragmatic individual with strong opinions regarding the reshaping of both U.S. foreign policy and assistance.

Smith and the Obama transition team are reportedly leaning on a cast of candidates and advisors that is, again, mostly from the Clinton Administration in deciding the shape of global health and its relative ranking within the overall foreign assistance framework. Smith is on record favoring radical surgery for foreign assistance, including rewriting the 1961 Foreign Assistance Act that guides all 150 Account spending, and putting a Deputy Director for ODA inside the National Security Council with power to oversee and bring coherence to the foreign assistance activities of some 22 agencies.

Another important name under consideration for an appointment in the Obama administration is former HHS Secretary Donna Shalala, now President of the University of Miami. During the Clinton Administration, Shalala was unable to reverse policies banning provision of sterile syringes to IV drug users, despite clear evidence that such programs limited spread of HIV. It's also worth recalling that Bill Clinton's global health budgets were small and international HIV/AIDS programs never garnered more than \$250 million a year.



For those eager to weigh in, or simply keep track of the rumors, the *Washington Post's* on-line site features gossip blogs rife with unverified rumors. Recently, for example, *the Post* website asserted that the position of leadership of PEPFAR was now down to two candidates – former CEO of the Global Health Council **Nils Daulaire**, and Harvard professor of public health **Jim Kim**. The blog that made this assertion went on to clearly favor Kim's appointment, publishing outright lies about Daulaire. Other blog postings have insisted that the slot of leadership over USAID was down to three candidates: **Gayle Smith**, **Daulaire** and **Dr. Helene Gayle** (now CEO of CARE USA and former global health advisor to Bill Gates).



In a little time, we will all know the truth. Once Daschle and Clinton nominations have been confirmed by the Senate, the Secretaries will be free to make their selections officially known. Confirmation hearings are scheduled to commence before Obama's Inauguration.

One point stands out: health does not appear to have a serious place on the security agenda in this evolving administration, and so far none of the names rising high on lists for appointments have shown a lot of concern about emerging diseases, pandemics, bioterrorism, infectious diseases surveillance, or preparedness—interesting given that President-Elect Obama’s stated concerns about pandemic influenza.

In that vein, we recommend you read Chicago Tribune reporter Jeremy Manier’s 2005 interview with Barack Obama on the subject of pandemics, posted on line last month: http://www.huffingtonpost.com/jeremy-manier/talking-public-health-wit_b_148667.html Asked how seriously he viewed the threat of pandemic influenza, Obama answered:

“I think it’s very serious. I think I would distinguish between the particular threat of the H5N1 [avian flu strain], and the threat of pandemic generally. I think that there are reasonably high probabilities of this particular avian flu mutating, and the potential results would be so catastrophic that we have to do everything we can to prepare for it now. The probabilities of some sort of pandemic striking in the next decade are extraordinarily high. And we have to prepare for those circumstances, so that if we make an investment now in creating the infrastructure for vaccine production, strengthening the distribution system and the relationship between federal, state and local governments, those investments won’t be wasted even if we’re lucky and this particular strain of avian flu doesn’t mutate, because we’ll then be in a position to deal with whatever pandemic comes down the road.

So, you hate to be Chicken Little on this thing - no pun intended. But this is actually one of those situations where getting people a little scared, and certainly getting our government a little scared is probably a useful thing. And as I said, whatever investments we make are not going to be wasted, because the likelihood of pandemic is so high, even if it isn’t this particular pandemic.”

-Jeremy Manier, “Talking Public Health with Obama,” *Huffington Post*

Battle Brews over Foreign Assistance and Global Health Spending

Regardless of who ends up running relevant government agencies, the global health and development communities should brace for major budget fights. As we have noted in prior Global Health Program updates, *an authorization does not equal an appropriation*. Absolutely nothing regarding the FY2009 budget and the amounts appropriated for everything from PEPFAR to the CDC is clear right now. Authorizations made in 2008 will probably not be appropriated – at least, not in the forms and quantities promised by the 110th Congress.

The new leadership of the 111th Congress has been working behind the scenes for weeks, trying to hammer out an Omnibus Spending package that will include Obama requests for financial bailouts, domestic job creation, and a middle class tax cut. According to a World Bank report released just before Christmas, the world economy has over the last six months lost \$6.9 trillion. In its final moments the Bush Administration has promised billions of dollars to banking, auto and financial industries. But this is only the beginning of the “Big Hemorrhaging”.

The Congressional leadership of the Republican Party has signaled that it will attack future “hemorrhaging” and insists on cuts in “unnecessary” programs in the FY09 and FY10



budgets. In a first salvo from the GOP side, House Foreign Affairs Committee ranking Republican, Ileana Ros-Lehtinen, circulated a letter signed by 11 other Republican House members last month calling for the freezing of all foreign assistance spending at FY08 levels until FY11. The Florida representative has expressed shock over how financial bailout money has thus far been spent, characterizing it as “obscene,” and called for tough limits on all additional spending. The 11 GOP representatives linked the freeze on foreign assistance spending to a demand for full disclosure from Democrats on how the bailout funds will be spent.

In contrast, the Global AIDS Roundtable, with about 100 member organizations, sent a letter to members of Congress calling for huge increases in HIV-specific spending: \$12 billion for PEPFAR in FY10 and \$2 billion for the Global Fund to Fight AIDS, Tuberculosis and Malaria. The Global Health Council pitched different numbers to Congress last month: \$13.2 billion overall for global health in FY10, including \$8.5 billion for PEPFAR and AIDS. Further complicating matters, tuberculosis advocates asked Congress to pony up \$650 million in foreign assistance earmarks for TB control, plus \$2.7 billion *more* than the Global AIDS Roundtable requests, specifically for Global Fund TB programs. And a consortium of maternal health advocates requested that \$1.3 billion worth of foreign assistance funds in FY10 be earmarked for maternal health.

To put this in perspective, in FY08 total ODA was \$22 billion, covering everything from building schools in Kabul and roads in Cairo, to running HIV tests in Kampala. Combining the Global AIDS Roundtable, TB and maternal health requests for FY10 results in an “ask” of \$18.65 billion just for HIV, TB, malaria, and maternal health, or more than two-thirds of the *entire* FY08 ODA spending.

Obama science advisor, Harold Varmus, chaired an Institute of Medicine committee that released a report in December 2008 that asserted spending on global health, alone, should increase steadily, doubling by 2012 to \$15 billion annually. And House leadership is pushing an FY09 omnibus spending bill that allots \$36 billion for Account 150 foreign assistance spending, and seeks specifically to bolster USAID, State Department and PEPFAR staffing.



The U.S. Commitment to Global Health: Recommendations for the New Administration

<http://www.iom.edu/CMS/3783/51303/60714.aspx>

This IOM report is disappointing, and feels as if it was rushed to publication, in hopes of having an impact on the congressional budget debate and Obama transition team. Its recommendations are unsurprising, and fail to reflect the larger debate now unfolding over the role of foreign assistance, writ large, and the relative importance of health. It avoids the security dimensions of global health almost entirely, in the apparent belief that humanitarianism, alone, should be a sufficient basis for political support. Given the economic climate and its effect on Capitol Hill, this seems a naïve position. Reading it, one senses a missed opportunity to provide bold, innovative thinking. Moreover, it does little to resolve debates over appropriate “asks” for health and development programs, or the relative weight Obama administration planners should give to any given disease or health trend. As a result, members of Congress and the Obama transition team are left to their own devices in trying to sort out how much to spend for global health and development, and on what specific efforts, amid a global catastrophic financial meltdown.

Ebola Returns

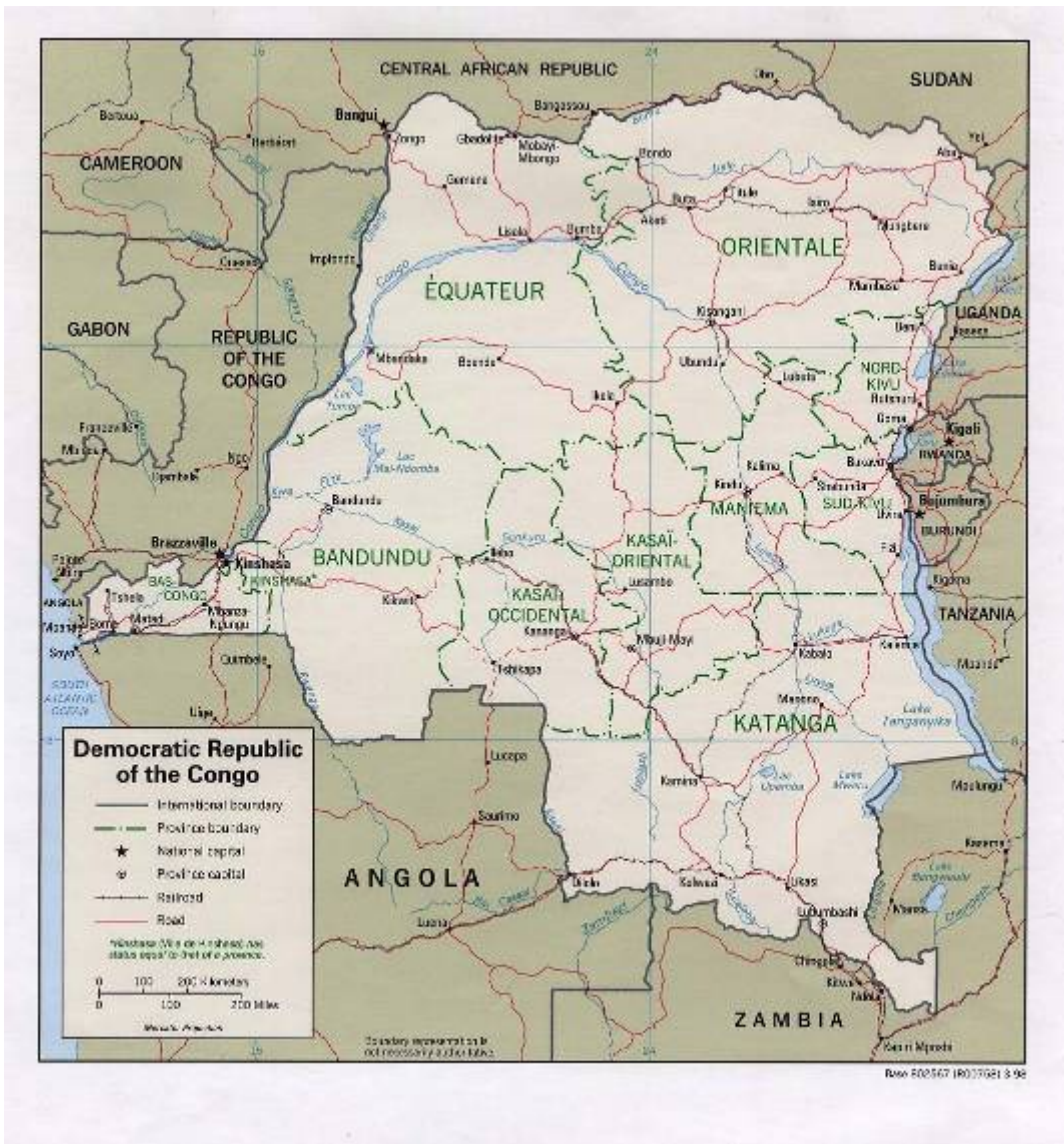
Though scientists know a great deal more about the Ebola virus and its transmission epidemiology today than they did during the 1995 outbreak in Zaire, now the Democratic Republic of Congo (DRC), mysteries continue to abound, and outbreaks continue to terrify. The 1995 outbreak killed 215 of the 350 individuals with confirmed infection, in the southern town of Kikwit, for an overall 62 percent fatality rate.

With eastern Congo devolving into a war that threatens to become another ethnic cleansing, on regional scale, coupled with intense fighting over access to diamond and mineral resources, the Ebola virus has reemerged. The United Nations Peacekeeping Forces in the



region find themselves overrun and ineffectual in a conflict that has exploded since November, pushing at least a quarter million Congolese refugees into harm's way. Humanitarian medical workers have been targeted by rival military forces and cholera is spreading rapidly. (For an excellent summary of the DRC conflict and health impact see Wairagala Wakabi's piece in *The Lancet*, Vol. 372, 2011-2012, December 2008.)

Overwhelmed by challenges in the Goma/Kivu region, the Kinshasa government seems unable to handle additional problems. And now it has an Ebola outbreak to deal with on its southern flank, in the Kasai Province near the Angolan border. Fearful that the epidemic will spread and knowing that Congo cannot handle the problem, Angola closed its border to Congo this week and shut down a vital trade route between the countries. Among other things, this closes off the diamond trade.



Two of the recent victims in the Congolese outbreak are Zimbabwean active duty soldiers, who died of Ebola this week. Why were Mugabe's troops in the area? It is widely known among African experts that Mugabe's regime is funded by the diamond trade, and that Zimbabwe plays a key role in maintaining President Joseph Kabila's rule in Kinshasa in exchange for ZANU access to the diamonds. Official press accounts in government-controlled media in Zimbabwe describe these dead soldiers as members of a peacekeeping force working to repel guerilla forces fighting in Kivu, but in truth they were operating on the opposite side of the country, close to the Angolan border (see map above).

But we digress, no? Well, not really: every outbreak in Congo, whether of Ebola, cholera, shigella, or HIV, is rooted in the multinational conflicts carried out in that country. Whether or not conflicts cause Congo's outbreaks, the ongoing instability in the region facilitates spread of disease in desperately resource-scarce health facilities. And those conflicts are in turn rooted in ethnic disputes and fights over Congo's vast mineral, gem, uranium, and oil wealth.

The latest Ebola outbreak was first reported to the office of Auguste Mopipi Mukulumanya, health minister of the DRC, on November 27th. But as is tragically typical for the central African region, the logistics of obtaining samples and transmitting them to WHO laboratories for confirmation took weeks. WHO confirmed the Ebola outbreak on Christmas Day. By that time at least 12 deaths from Ebola were confirmed, and nearly 200 contacts and suspected cases were under investigation.



On New Year's Day, the Ugandan government closed its border, and issued an Ebola health alert. This would appear to be a political move, as Uganda's border is hundreds of miles away from the outbreak, and the Museveni government reportedly backs rebels in the eastern Congo conflict.

Médecins Sans Frontiers (MSF) is handling patient care and quarantine operations in the outbreak. On New Year's Eve MSF issues a statement:

MSF is closely monitoring what could possibly be new pockets of Ebola in the same district of Mweka. However, other diseases, including malaria and shigellosis, which can also have similar flu-like symptoms to Ebola's in the 1st stages, have been confirmed in the area. Thus, confirmation is still pending from the laboratories to determine whether these new cases are Ebola or not.

Meanwhile, an international team of scientists, which included Columbia University's Ian Lipkin, isolated and sequenced an alleged Ebola virus that broke out at the end of 2007 in Uganda. And they discovered that the virus maps genetically so distantly from all previously known Ebola that they have to be considered new species.

See: <http://dx.plos.org/10.1371/journal.ppat.1000212>

CITATION: Towner JS, Sealy TK, Khristova ML, Albarin ^o CG, Conlan S, et al. (2008) Newly Discovered Ebola Virus Associated with Hemorrhagic Fever Outbreak in Uganda. PLoS Pathog 4(11): e1000212.doi:10.1371/journal.ppat.1000212)

Finally, Ebola broke out in pigs in the Philippines. This is the first time it has been seen in porcine form. The Ebola strain was a familiar one, chronicled in detail in Richard Preston's bestseller *The Hot Zone* (1994), the story of an outbreak inside a monkey colony housed in Reston, VA. The strain is dubbed Ebola-Reston, though it is now known to have originated in the Philippines.



Though there have previously been outbreaks of Ebola among monkeys in the Philippines, this is the first outbreak of the virus ever seen in swine. The pig deaths started in 2007, but were originally ascribed to other causes. On October 30, 2008, laboratories working with WHO confirmed the Ebola outbreak, but Philippine officials chose not to release that information to the general public until December 10th. A fair amount of panic ensued once the Ebola information became public.

Animal control authorities in the Philippines set to work killing animals before Christmas that were suspected of infection. Control is proving difficult because pork is the major source of protein in the Filipino diet—especially during Christmas feasts—and many of the infected animals belong to sustenance-level farming operations. Fear of pig-to-human transmission of the virus has sparked the Philippine government to request outside help.

In fairness to Philippine authorities, the delay in informing the public about the Ebola outbreak may have been due to confusion regarding lab work. Another porcine disease was circulating at the same time, and scientists at the Plum Island laboratory in New York correctly identified it. As it turned out, two epidemics are circulating simultaneously in the pig populations.

We await results of scientific investigations aimed at determining what animal species in the Philippines is the reservoir for Ebola, and how the virus was transmitted from that species to pigs. Suspicions focus on wild bats. It is also hoped that scientists will closely investigate how Ebola is transmitted between pigs. In most human outbreaks the bulk of transmission has taken place during healthcare in resources-scare, minimally hygienic clinical settings, or during preparations of bodies for burial. In both cases, Ebola seems to be transmitted via physical contact with contaminated bodily fluids. Pigs, of course, cannot be passing the virus exactly the same way, though Ebola transmission might mirror Nipah virus spread among pigs, facilitated by shared food and sneezing. Since Ebola is an RNA virus and can infect airways and nasal passages, pig infection and spread via Nipah-like mechanisms could be worrisome. Another crucial RNA virus, influenza, has historically proven capable of taking on human epidemic characteristics after adapting to swine pulmonary cells.

The H5N1 Comeback

The H5N1 “bird flu” virus stubbornly refuses to disappear, now enjoying its sixth winter resurgence since its 2003 mutation, and 14th year from presumed time of original emergence. Bird outbreaks and a few human cases have been reported over the last month in Egypt, Vietnam, Indonesia, South Korea, China, Hong Kong, India, Bangladesh, Thailand, Cambodia, Laos, Turkey, Germany, the UK, and Pakistan. Since 2003, 391 people have contracted bird flu from H5N1 infection. It has killed 247 of them.

The Canadian Press published an overview of where the world stands at this moment with H5N1 (“**Whatever happened to avian flu?**” *January 2, 2009*) in which WHO officials discuss the fatigue that has set in regarding H5N1 bird flu:

“Whatever the uncertainty about H5N1, one thing is clear. A fog of exhaustion has settled over the influenza science community as well as the public health officials who have been slaving over pandemic plans. A healthy portion of the broader public is probably sick to death of the subject too.



‘I think flu fatigue is certainly a phrase which is thrown around a fair amount in the past several months or past year or so,’ admits Dr. Keiji Fukuda, head of the World Health Organization’s global influenza program. In stepping back after going through three or four years of working really hard, I think that there is a genuine sense of ‘Wow! We have been pushing so hard and we are tired of that.’”

Fukuda says the fear associated with the initial re-emergence of H5N1 — which infected 18 people and killed six in 1997 in its first known foray into humans — fuelled an urgent drive to prepare for what was feared to be an emerging pandemic.

‘There was truly a sense that we simply do not understand what this virus is going to do and it could just change at any moment into something. And I think that that really drove people to work incredibly hard,’ Fukuda says.

But as time as gone on, it has become apparent the virus isn't working on a discernible timetable. After a peak of 115 human cases and 79 deaths in nine countries in 2006, human infections declined to 88 cases and 59 deaths in 2007. In 2008, only 40 human cases and 30 deaths were reported, from six countries.

Experts can only guess at why that is, and whether it signals a long-term change or is merely a short-term blip.

‘It could be just a cyclical thing,’ says Dr. Maria Zambon, head of the respiratory viruses unit of Britain’s Health Protection Agency. ‘I would be cautious, I think about ... inferring long-term trends from actually reasonably limited data.’

Fukuda says studies haven't shown that the virus has fundamentally changed, so the best guess is that the reason for the decline in cases probably rests with human behavior. Efforts to eradicate infected poultry have improved, and countries that use poultry vaccine may be lowering the number of times people come in contact with the viruses as a result.

As well, affected countries have made strides at educating the public about the risk of contact with sick and dying poultry, he says, though poor people are probably still putting the carcasses of infected birds into the pot, rather than the pyre.

Uyeki suggests other possibilities. As the problem has seemed to wane, so has attention on it. That could be translating into more lax surveillance for new cases. Doctors could be less likely to suspect and test for H5N1 infection, attributing illness to myriad other potential causes.”

Since 2003, Hong Kong authorities have prevented H5N1 outbreaks through mass vaccination of local poultry, and have felt confident that the strategy worked. But H5N1 control efforts to the north, in mainland China, have not controlled the virus, and migratory birds have turned up infected in Hong Kong, and died, every year. Now it appears that the form of H5N1 in circulation in China and that has spread into Hong Kong, resists the types of immunological protection mustered in chickens by the Hong Kong vaccine. In other words, a vaccine-resistant strain of H5N1 has emerged.



For years scientists have vigorously debated the relative importance of migratory birds versus animal sales and smuggling in spreading influenza across international borders. While it is obvious that both factors are important, knowing which plays the greater role carries implications for disease control.

Jonas Waldenstrom of Sweden's Kalmar University, Albert Osterhaus of Erasmus Medical Center in Rotterdam in December published evidence that wild mallard ducks tests in Sweden have limited ability to spread low-pathogenicity forms of flu (not H5N1). The group analyzed 10,000 wild ducks that landed in Swedish waters, discovering that when mallards are infected, they take ill – contrary to conventional wisdom regarding likely reservoir species of animals harboring viruses. Further, the sick birds lose weight and weaken, and therefore do not fly vast distances, carrying the virus with them. And mallards are only able to shed viruses into their environment or in their feces during their first days of infection.

"Although many mallard populations are migratory, the short virus shedding times (often less than a week) imply that individual birds are not long-distance dispersers of the virus on a continental scale," Waldenstrom told reporters.

Robert Webster, of St. Jude's Hospital in St. Louis, and his colleagues formulated the migratory bird hypothesis decades ago, based on Asian observations. Since influenzas primarily arise in China, it would be helpful to know whether the Swedish mallard findings are mirrored in wild Asian aquatic bird populations.

In Asia, tensions regarding how H5N1 strains get across borders have run hot, especially between India and Bangladesh. Both countries have suffered widespread H5N1 outbreaks in chickens, both last year and this year. India has several times closed its Kolkata border with western Bangladesh, resulting in political strife between the countries. The accusation on India's part is that birds and eggs from Bangladesh are infecting India's poultry. Of course, if regional migratory birds can carry the virus, there is less justification for such accusations and border closures.

Meanwhile, India is finding control of H5N1 difficult this year. Outbreaks of the virus in poultry and a few human cases have occurred this winter in West Bengal, Orrisa and Assam.

On January 5th, a 19 year old woman died of H5N1 in Chaoyang, China. An 8 year old girl is hospitalized with H5N1 flu in Dien Trung, Vietnam. And an entirely different influenza viral strain, H9N2, recently turned up in China's Guangdong province, bordering Hong Kong, infecting a baby girl. The child is now hospitalized in Hong Kong, suffering from another type of bird flu. A 16-year-old Egyptian girl and a 2-year-old girl in Indonesia have died of H5N1 since November.

The U.S. Centers for Disease Control and Prevention (CDC) issued a warning on December 20: strains of Tamiflu-resistant seasonal influenza are popping up all over America. The influenza species, H1N1, is a low pathogenicity form of flu, thankfully. But all H1N1 samples, collected in 12 U.S. states, show varying degrees of resistance to Tamiflu (aka oseltamivir) treatment. Tamiflu is the most popular flu treatment because it can be taken in pill form. Resistance is also high against two less commonly used drugs, the anti-flu spray Relenza (zanamivir), and the oldest group of drugs, adamantanes.



"With limited influenza activity in the United States, few viruses have been available for antiviral resistance testing. Preliminary data show that 24 of the 25 influenza A (H1N1) isolates tested were resistant to oseltamivir; all H1N1 isolates were sensitive to zanamivir. All 5 influenza A (H3N2) and the 9 influenza B isolates tested were sensitive to oseltamivir and zanamivir. 25 influenza A (H1N1) isolates and 5 influenza A (H3N2) isolates were tested for adamantane resistance. All influenza A (H1N1) isolates were sensitive to adamantanes, and all influenza A (H3N2) isolates tested were resistant to adamantanes. The adamantanes are not effective against influenza B viruses." <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5749a3.htm>

Several points are startling. Last year overall influenza drug resistance in the U.S. was merely 11 percent. This year it is 100 percent (every strain is resistant to at least one of the drugs. Most strains are resistant to two or more drug classes). This extraordinary increase in resistance is perplexing because most Americans never take any prescription flu drugs when they are sick, so there is not the sort of widespread misuse with anti-influenza medications that has driven resistance in bacterial populations in response to overuse of antibiotics.

The second puzzle is how such widespread resistance has emerged in a low flu period. Most of the CDC samples were collected between late September and mid-November, a period that two decades ago might have been flu time in America. But in a trend possibly connected to climate change, flu seasons have been hitting America hardest in late winter every year, so that some states now see peak influenza outbreaks in February. Overall, year-to-date, this has been a very low flu year in the USA.

So how could this happen? Tamiflu resistance involves a single mutation, H272Y, which is located on a gene that codes for a crucial influenza protein, neuraminidase. That mutation site is apparently labile, so mutations are spontaneous and common. It turns out that H1N1 strains all over the world are showing evidence of resistance. Since H1Ni also circulates in areas afflicted by H5N1, scientists now worry that this mutation could be shared with the bird flu virus, making it nearly impossible to treat. Given H5N1 already kills between 50-80 percent of the people it infects, this is worrying.



All of this influenza news leads back to the central question that has haunted public health officials and scientists for more than a decade: What does it take for a run-of-the-mill influenza to turn into pandemic killer?

Researchers from Baylor College of Medicine published the three-dimensional structure of H5N1 last month in *Nature* magazine, showing that the virus hides its key, killer elements inside of long coils and twists of protein. Two tiny mutations make this coiling fall apart, revealing the viruses' most vital elements to attack from the human immune system. In essence, H5N1 is already uniquely capable of defying immune defenses because it surrounds its killer components with molecular armor, which snaps open when the virus latches onto and invades a human cell.

University of Wisconsin researchers led by Yoshihiro Kawaoka have done the lion's share of molecular work on the 1918 pandemic influenza virus, which caused one of the two or three largest disease devastations of human beings in known history. The key to that strain's spread was its ability to not only infect human lungs, as most influenzas can do, but also the upper respiratory tract, from whence it could easily be coughed or sneezed to other people. Further, it caused the lungs of human beings to hemorrhage, filling with blood and immune system fluids.

The Kawaoka team used genetic manipulation of 1918 flu samples, creating partial hybrids, to find the genes responsible for this upper respiratory tract infection capacity. They deliberately crippled viruses and infected ferrets to see which genes, when deleted, eliminated the upper respiratory tract infection capability. It turns out the virus used 4 different genes in an orchestrated interaction to render it capable of such dire transmissibility.

We look forward to learning where those genes are located, and how similar they may be to H5N1 genes at the same site positions.

Finally on the flu front, we turn to Indonesia and the ongoing fight over "viral sovereignty". As of December 12, 2008, Indonesia had officially reported 139 H5N1 infections, and 113 human fatalities, for a death rate of 81.3 percent. Indonesia has the most human cases, the highest human death rate, and the most frequent poultry outbreaks of H5N1. The virus has surfaced in 12 of the 33 provinces of Indonesia, including the capital of Jakarta. Just before

Christmas, the national bird flu control authorities announced that more than half of all live chickens tested in the country’s marketplace are infected with H5N1.

If H5N1 mutational changes are going to be spotted in time for the world to do *anything* to prepare, global health authorities must have their eyes on Indonesia. But for more than two years Indonesia has refused to share samples of viruses that have emerged in that country, or details of its epidemiological investigations following human cases, on the grounds that viruses found within its borders are the sovereign possessions of the State. Indonesia’s Health Minister, Siti Fadilah Supari, wants guarantees from WHO and the Global Influenza Surveillance Network that no drug company will have access to “Indonesian viruses” without her government’s approval, including written profit-sharing and distribution agreements for any vaccines or drugs derived from them.

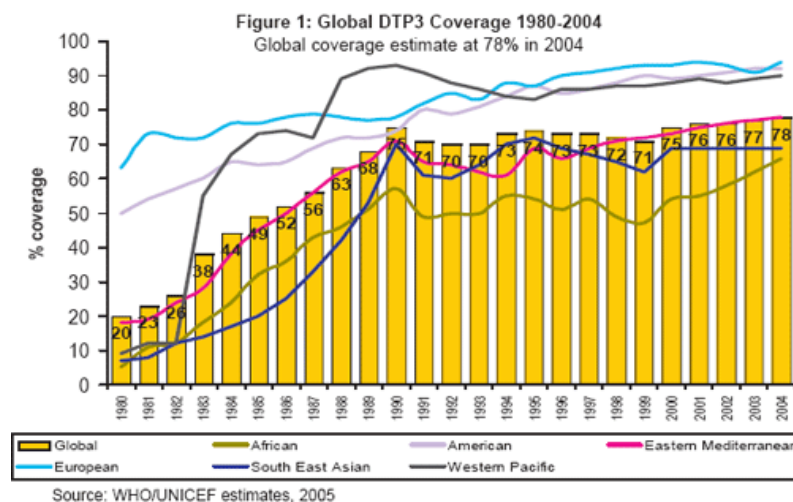


Before Christmas, WHO convened the Intergovernmental Meeting on Pandemic Influenza Preparedness, which tried to reach an agreement with Indonesia. The group met for six days in Geneva, finally reaching an agreement that helps, but does not clearly solve the problem. All words implying that WHO member states are *required* to share viral samples has been deleted, with language softened to imply voluntary sample sharing. The signed agreement states that WHO will, “recognize that member states have a commitment to share on an equal footing H5N1 and other influenza viruses of human pandemic potential and the benefits, considering these are equally important parts of the collective action for global public health.”

Will this solve the problem? Stay tuned. We await word that dozens of viral samples have been transferred from Jakarta to Geneva.

Controversy over the Real Extent of Child Immunizations

One of the biggest global health success stories has been the engagement of the Bill & Melinda Gates Foundation with UNICEF and other child health agencies, leading to the well-funded GAVI Alliance (Global Alliance on Vaccines and Immunizations). Launched in 1999, GAVI has improved the supply and distribution of basic vaccines, created incentives to push governments to routinely



provide pediatric immunizations and claims enormous improvements in child protection/disease reduction.

Based on the GAVI efforts, WHO estimates that the percentage of the world's children properly vaccinated with DPT3 (diphtheria, tetanus and pertussis) has risen from 59 percent in 1986 to 74 percent in 2006.

Is that true?

Chris Murray is the head of the Institute for Health Metrics and Evaluation at the University of Washington—a center funded by the Gates Foundation specifically to confirm or refute claimed successes, failures, disease incidences, and prevalence, and overall health trends worldwide. His team compared the DPT3 numbers that countries report to GAVI and WHO to samplings of local records or unit reports. They discovered wide discrepancies and concluded that financial incentive programs that GAVI has put in place for 8 years have prompted countries to over-report their DPT3 rates. In other words, because GAVI holds out financial reward, countries lie to GAVI.

The Murray paper, which was published in the December 13th issue of *The Lancet* (Vol. 372: 2031-2046) sparked a firestorm. GAVI and UNICEF are not happy, critics have parsed numerous methodological details to quibble about, and the stakes are high in this debate. If GAVI's policies have led to distortions in public health reporting, the policy should be changed. But if the methodology of the Murray team is flawed, GAVI might be wise to stay the course.

The study and an accompanying editorial by David Bishai of Johns Hopkins University, bear scrutiny by anybody involved in child immunization programs in poor countries, as well as donors. The controversy could be easily resolved if children were tested for immune responses to diphtheria, tetanus, and whooping cough. Comparing antibody-positive rates to reported vaccination numbers might explain whether local paperwork is flawed or GAVI policies need correcting.

Measles

No doubt Murray's team is also toiling to assess claimed successes in measles vaccination. Last month, a group of United Nations agencies, the Red Cross, and the U.S. CDC declared an amazing victory in the effort to control measles: a 74 percent drop in reported cases, over a mere 7 years. In 2000, there were 750,000 measles cases; by 2007 that was down to just 197,000 a year, according to the UN. War-torn Sudan, according to the UN, cut measles cases by 90 percent. Africa overall reduced measles cases by 63 percent. Only Southeast Asia and India continue to have low vaccination rates and high incidences of measles.



This is fantastic news, and cause for celebration.

BUT...

All over the wealthy world we continue to see outbreaks of measles, primarily due to parents' unwillingness to submit their children to vaccination. The inadequate immunization rates in typically middle class and religious communities have been prompted by mistaken beliefs that the MMR (measles, mumps, rubella) vaccine causes autism.

Autism fears run especially high in the United Kingdom, and so do measles outbreaks. Six weeks ago UK health authorities reported that measles infections were reaching epidemic levels in England and Wales, with the largest numbers of cases reported in 13 years. Fully 25 percent of children under 5 years of age in the UK are *NOT* vaccinated with MMR at this time, putting the UK well below many African countries for successful immunization rates. British health authorities estimate that the country is at a herd immunity tipping point, which could easily lead to an epidemic of school-aged children sometime in the next year, sickening as many as 100,000 youngsters.



English travelers have spread measles on two airplanes, infecting passengers en route to New Zealand and Australia in October and November. More than 300 measles cases have been reported in the UK territory of Gibraltar since mid-November.

Southern China is also struggling with outbreaks of measles, occurring in the big industrial cities that draw hundreds of thousands of migrant workers from poorer parts of the country. The city of Shenzhen, bordering Hong Kong, has one of the highest measles rates in children under 5, at about 25 out of every 100,000.

Dutch authorities in Utrecht have been battling measles for a while, spawned by a religious cult's refusal to vaccinate its children. Active measles cases among cult members have emerged since August 2008. Fortunately, unlike the UK the Netherlands has a good MMR vaccination completion rate in its general population: 95 percent.

Finally, the CDC says that the U.S. now has the highest measles rate since 1996. Between January 1, 2008 and the end of July, some 131 cases of measles were reported, 15 of which required hospitalization. (By comparison, the full year of 2006 saw 55 measles cases.)

Can We Treat Our Way Out of HIV?

This week the HIV/AIDS department of WHO published a mathematical model that suggests it is possible to eliminate HIV entirely from human beings through a combination of universal testing (of the entire world population) for HIV infection, coupled with aggressive

antiretroviral (ARV) treatment of those found to be HIV positive. Several assumptions, based on numerous other studies, are built into the math model, including:



- Most HIV transmission occurs during early stages of infection, when most individuals are asymptomatic and have no idea that they are putting their sexual or drug use partners at risk;
- Available HIV tests can reliably capture those early infections, if they are put to use;
- Appropriate use of ARVs lowers individual's viral load such that they are rendered nearly noninfectious;
- Extensive routine CD4 and other laboratory testing is not essential for excellent patient outcomes;
- Drug resistance will be limited and “restricted” and therefore not require substantial changes in treatment regimens;
- The costs of ARV drugs will come down, due to new drug innovations and their volume of use;
- And, all of these efforts can be scaled up to 90 percent of universal levels by 2016, and then sustained until 2050.

Between 2015- 2050, according to this math model, 7,350,000 deaths due to AIDS would be averted, and 3,727,000 would have died.

What is the price tag for this scheme? About \$58 billion a year in donor support, assuming that the, “cost for first-line drugs – including drug delivery, HIV and laboratory testing, and patient management – [is] US\$727 (range \$290-1163) for first-line drugs and \$3290 (\$2497 – 4083) for second-line drugs,” per person, per year.

Is it reasonable to assume that in a global economic crisis that now rivals the Great Depression in many ways, and has the U.S. facing a FY09 budget deficit of \$1 trillion, donor support can be sustained for 34 years at a level of \$58 billion annually? Could millions of unemployed American workers be convinced to support such an initiative?

In an accompanying editorial in the January 3rd issue of *The Lancet*, Dr. Kevin De Cock and other colleagues from WHO's HIV/AIDS program throw cold water on scheme, saying, “There is currently inadequate evidence for WHO to define policy and guidance about the role of ART [ARV therapy] in HIV prevention.”

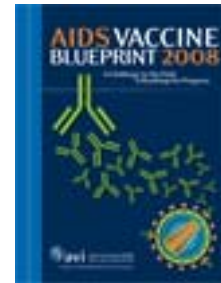
And Geoffrey Garnett and Rebecca Baggaley of Imperial College argue in another *Lancet* editorial that, “The suggested strategy would reflect public health at its best and at its worst.

At its best, the strategy would prevent morbidity and mortality for the population....At its worst, the strategy would involve over-testing, over-treatment, side-effects, resistance, and potentially reduced autonomy of the individual in their choices of care.”

The Global Health Program wonders about two other points not noted in these editorials: What happens after 2050? And what would happen if we ever spent \$58 billion, in a single year, on HIV vaccine research?

We assume that the 2050 cut-off date is not meant to imply that all HIV+ people on medicines at that moment could stop treatment. Obviously, the pandemic would then simply resume, as these individuals would again be highly infectious. So while the cut-off date might, in the mathematical model, represent an AIDS control or “elimination” point, it would certainly not render the virus eradicated, the risk of resurgence gone, or the financial burden of the epidemic at an end.

Current annual R&D on HIV vaccines worldwide is less than \$1 billion, with the United States public and private sector responsible for more than 95 percent of that. There are 23 candidates for AIDS vaccines in clinical trials right now, and many more are further back in the R&D pipeline. The International AIDS Vaccine Initiative (IAVI) just released a roadmap for vaccine development, “AIDS Vaccine Blueprint 2008” (<http://www.iavi.org/viewpage.cfm?aid=1935>). It offers a scientific and organizational way forward.



It has long been our belief that people infected with HIV ought to have access to proper treatment. But ideal prevention and pandemic control will be achieved with a vaccine.

What’s missing in the “Right to Health”?

A team of researchers released its assessment of progress in 194 countries in pursuing health as a human right. The report, which is staggering in its detail, was published on December 13th in *The Lancet* (Gulina Backman et al, “Health systems and the right to health: an assessment of 194 countries,” Vol. 372: 2047-2085 with an accompanying editorial by Amartya Sen).

The report is based on European metrics, and all of the countries used for detailed evaluation are in northern Europe, with the exceptions of Peru, Ecuador and the Philippines. We suspect the detailed documentation in this massive study will be of academic utility for years to come.

However, the 72 indicators used to measure the human rights-health linkage reflect a strong European bias towards government-provided universal healthcare. The report states that, “We asked whether the national health plan includes an explicit commitment to universal

access to health services, defined as access to primary, secondary, and tertiary physical and mental care. We regarded a commitment to basic or essential care as inadequate.”

Given upwards of 70 percent of healthcare delivery in most poor countries, especially in Asia, is provided by the private sector, the expectation that countries must offer 100 percent government-financed tertiary care in order to avoid the label of human rights violation is puzzling. Not surprisingly, the nations that come closest to meeting human rights criteria for health are Scandinavian. It is hard to understand how, for practical purposes, this algorithm can be used in most of the world, as it sets the human rights bar so high—including assessments of CO2 emissions—that well over 95 percent of the nations of the world will probably be in violation of these defined human rights for the duration of the 21st century.

Perhaps the most enlightening comment is this very simple one from Sen’s editorial: “In seeing health as a human right, we acknowledge the need for a strong social commitment to good health. There are few things as important as that in the contemporary world.”



China’s Melamine Scandal Continues

Since the SARS epidemic of 2003 we have seen a disturbing pattern in China:



1. Illnesses and deaths occur, with the cause linked to a product or contaminant;
2. After a delay of perhaps weeks, said phenomenon is reported to health authorities at the local and perhaps national level;
3. The situation continues to unfold, with no apparent government response, often for months;
4. Somebody living outside of China becomes ill, and that outside government takes action, typically barring importation of the responsible product;
5. Beijing then takes action, and the staggering toll inside China becomes public, spawning an outcry among Chinese citizens;
6. Over a period of weeks, China’s central government struggles with local

authorities and private companies to bring the situation under control;

7. A handful of company directors and/or Communist Party officials are designated the prime culprits, “tried” and either imprisoned or executed.

Since December 2007 this chain of events has unfolded in relation to the use of the chemical melamine in dairy products. Nearly 300,000 Chinese children have been sickened, 50,000 hospitalized and at least six killed to date, according to official Beijing figures. Most of the victims were newborns that were fed melamine-contaminated baby formulas manufactured by 22 different companies.

The melamine mess has spread well beyond Chinese borders, chiefly due to exported milk powders used by chocolate, biscuit and candy manufacturers worldwide, including in the U.S. (A list of U.S. contaminated products was published in the Christmas issue of the *New England Journal of Medicine*, page 2747.) China has tried 17 key manufacturers, found them guilty, and sentencing may include executions. The government arrested protesting parents, but this week released them and promised to compensate all of the nearly 300,000 Chinese families for some of the medical costs incurred by the poisoning of their babies.

This melamine incident, coming on the heels of other dreadful contamination events that have featured products ranging from pet food to heparin anti-coagulants, poses a serious challenge for the Obama administration. Regardless of who is named FDA Commissioner, and where within the administration Obama chooses to locate the U.S.-China trade negotiators, a radical change is needed in how America guarantees the safety of Chinese imports. As the melamine incident expanded, the FDA sent inspectors to China, where they screened products intended for U.S. markets. Given the scale of incidents, however, coupled with the *pharmaceutical industry's absolute dependence on Chinese raw materials for manufacture of nearly all drug and vitamin formulations*, a far more aggressive trade and FDA stance will be required to ensure public safety.

Finally.....

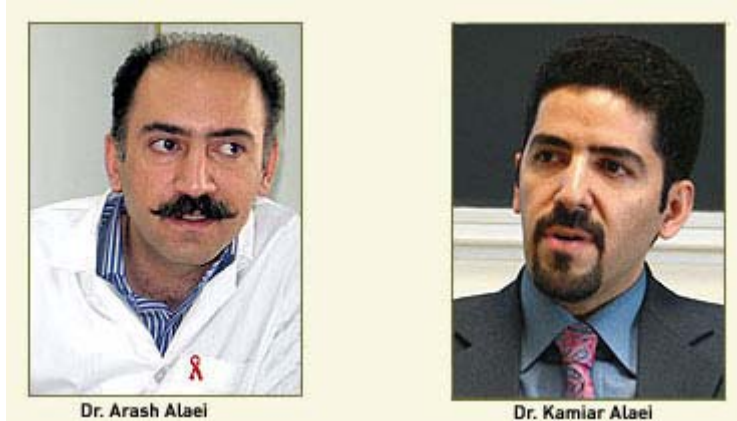
Long time readers of these CFR Global Health Program updates know that we were actively promoting release of the 5 Bulgarian nurses and a Palestinian physician who were wrongfully accused of spreading HIV inside Libya in an alleged CIA or Mossad plot. Thanks to the hard work of hundreds of scientists, human rights activists, and the governments of the EU, US, and France, the healthcare workers were released and now reside in Bulgaria.

Sadly, a similar saga has unfolded inside Iran, garnering little international attention. A Council on Foreign Relations Research Associate expert in Iranian affairs offers this summary of the case. (The individual asks that we not give his or her name, as the individual has family living inside Iran):

A few years ago, walking into the Mehrabad Airport in Tehran, Iran, visitors were greeted by a prominent government billboard that described ways to prevent the spread of HIV/AIDS

(including condom use, abstinence and clean needles). For most first time visitors to the Islamic Republic, the display was truly shocking. How could a theocratic Muslim country that outlaws extramarital sexual relations and homosexuality and that largely denies its widespread drug abuse problem discuss HIV/AIDS in such a public and open way?

The answer lies with the work and advocacy of brave Iranian doctors and health advocates who over the years have convinced the Islamic government that they can prevent future infections of the disease and can treat and care for those already infected.



Two of these admirable physicians are Drs. Arash and Kamiar Alaei, Iranian brothers who have dedicated their lives to fighting HIV/AIDS in their country. Working with government officials and religious leaders for over fifteen years, the Alaei brothers have created innovative harm reduction programs, helped integrate care for HIV/AIDS patients into the national health system, and educated the Iranian public about the disease.

In June 2008, however, both brothers were suddenly detained by Iranian security forces and taken to the dreaded Evin Prison in Tehran. The Alaei brothers, who had never been involved in political activities (but did who travel to the U.S. and other Western countries to promote their work), were falsely charged with attempting to destabilize the Islamic Republic. Despite the pleas of their families and international human rights organizations, the brothers were not released. Then, last week, after a hasty trial, the Alaei's were found guilty of communicating with an enemy state. The court declared that the doctors were in contact with foreigners that were intent on overthrowing the regime--a completely fabricated charge.

Physicians for Human Rights are collecting online petitions that will be sent to the Iranian Ambassador to the UN calling for their immediate release.

http://actnow-phr.org/campaign/drop_the_charges

As always, the Global Health Program of the Council on Foreign Relations will endeavor to keep you informed of these and other related events.

Happy New Year!

Sincerely,



Laurie Garrett

The Physicians for Human Rights report on cholera in Zimbabwe:

Archbishop Tutu Will Release a Statement on 'Crimes Against Humanity'

WHEN: Tuesday, January 13, 1:15 p.m. Eastern (refreshments will be served)

WHERE: United Nations Church Center, 777 UN Plaza, 10th Floor, New York City

SPEAKERS: **Susannah Sirkin**, Deputy Director, Physicians for Human Rights

Dr. Chris Beyrer, Director, Center for Public Health and Human Rights,
Johns Hopkins University School of Public Health;

Richard Sollom, MA, MPH, Consultant, Physicians for Human Rights

PHR will release findings and recommendations from its health and human rights fact-finding delegation, sent to Zimbabwe in December 2008 to conduct an emergency assessment of the health system and health of the population. Beyrer and Sollom travelled to Zimbabwe in December as members of the delegation and are co-authors of the report. The report will detail the spread of the cholera epidemic and other impacts of human rights violations on healthcare in Zimbabwe. PHR will also issue recommendations for accountability, humanitarian response, and restoration of basic health infrastructure in Zimbabwe.

Archbishop Desmond Tutu has written a statement to be released concurrently with PHR's report, in which he appeals to the international community to hold the Mugabe regime accountable for crimes against humanity. Photographs from the delegation will be available as will a photo opportunity during the event.

*Physicians for Human Rights, physiciansforhumanrights.org mobilizes the health professions to advance the health and dignity of all people by protecting human rights. As a founding member of the International Campaign to Ban Landmines, PHR shared the 1997 Nobel Peace Prize. **Please RSVP for this event by Monday, January 12, 2009. For further information, contact Josephine Lee at +1 617-301-4208 or via email at jlee@phrusa.org.***