

**IN THE NEWS**

[[HTTP://WWW.LSUHOSPITALS.ORG/MEDIA-RELATIONS/IN-THE-NEWS.HTM](http://www.lsuhealth.org/media-relations/in-the-news.htm)]

[TUESDAY, MAY 05, 2009]

LSU says it's prepared for outbreak  
WAFB.com | 05.04.09 ..... 3

State Police holding blood drive at Troop A  
The Advocate | 05.05.09 ..... 4

New Orleans Mayor Nagin To Meet With Gov. Jindal and Louisiana Leaders  
BayouBuzz | 05.05.09 ..... 5

Jindal's top priorities: saving chicken plant and defeating unemployment expansion  
The Times-Picayune | 05.04.09 ..... 6

Nonprofit groups ask lawmakers for state money  
Daily Comet | 05.04.09 ..... 8

H1N1 Flu (Swine Flu) Infections Alert for Institutions of Higher Education  
Centers for Disease Control and Prevention | 05.01.09 ..... 10

La. has no new cases of suspected swine flu  
The Advocate | 05.05.09 ..... 12

5 new cases of suspected swine flu show up in Louisiana  
The Times-Picayune | 05.05.09 ..... 14

Delay in tax cut proposed  
The Advocate | 05.05.09 ..... 16

Our Views: Budget crisis from tax cuts  
The Advocate | 05.05.09 ..... 18

EDITORIAL: Vigilance on swine flu  
The Times-Picayune | 05.05.09 ..... 19

Developments on swine flu worldwide  
The Times-Picayune | 05.05.09 ..... 20

Bill to ban school clinics draws fire  
The Times-Picayune | 05.05.09 ..... 21

Community meeting tonight on closure of New Orleans Adolescent Hospital  
The Times-Picayune | 05.05.09 ..... 22

BR biotech company succeeds in drug test  
The Advocate | 05.05.09 ..... 23

Action delayed on "conscience in health care" bill  
The Times-Picayune | 05.04.09 ..... 25

WHO: Flu will continue to spread  
The Washington Post | 05.04.09..... 26

Worry? Relax? Buy Face Mask? Answers on Flu  
The New York Times | 05.04.09..... 27

10 Genes, Furiously Evolving  
The New York Times | 05.04.09..... 30

## **LSU says it's prepared for outbreak WAFB.com | 05.04.09**

BATON ROUGE, LA - The LSU Health System Health Care Services Division (HCSD) says it has been actively planning for at least two years within its system of seven hospitals and clinics and with its state and federal partners for a pandemic flu outbreak and has maintained stockpiles of necessary medical supplies.

Additionally, LSU is currently engaging in the following activities:

- \* Implemented surveillance strategies in all HCSD hospitals and clinics for immediate isolation and testing of patients with influenza-like illness.

- \* Working with its existing patient help line, 1.877.LSU.TALK (1.877.578.8255), to give the public appropriate health information related to swine flu (H1N1 virus) and to ensure adequate staffing for increased call volume.

- \* Disseminating swine flu informational fact sheets within all facilities.

- \* Updated its website with swine flu link to helpful information: [www.lsu-hospitals.org](http://www.lsu-hospitals.org).

- \* Emphasizing infection control practices among all health care employees.

- \* Holding system-wide meetings multiple times per week as needed to share information and ensure consistency with regard to response and readiness.

- \* Participating in state Department of Health and Hospitals, Office of Public Health and Centers for Disease Control managed conference calls for the latest information.

- \* Reviewing pandemic flu protocols and pandemic emergency plan for readiness.

The hope is this flu virus does not spread, but LSU has processes in place to support its communities should the outbreak become worse. Louisiana residents are an important part of the LSU Health System's preparedness efforts.

"We take the threat of swine flu seriously, but we know we can greatly reduce the incidence of infection by practicing good health habits we should always employ," said Dr. Michael Butler, HCSD CEO.

These practices include the following common-sense precautions from the Centers for Disease Control and Prevention:

- \* Wash your hands often.
- \* Cover your mouth when sneezing or coughing.
- \* If you are sick, stay home from work or school.
- \* If you develop flu-like symptoms seek the care of a health care professional.
- \* Patients who suspect they might have a case of swine flu should first call their physicians' office.

It is strongly urged that patients do not go to hospital emergency rooms unless they are experiencing severe signs of illness. This will help prevent the spread of the virus.

[http://www.wafb.com/Global/story.asp?S=10298332&nav=menu57\\_2](http://www.wafb.com/Global/story.asp?S=10298332&nav=menu57_2)

[\[BACK TO TOP\]](#)

## **State Police holding blood drive at Troop A**

**The Advocate | 05.05.09**

Advocate staff report

State Police Troop A is holding a blood drive for LSU Earl K. Long Medical Center at the troop's headquarters from 9 a.m. to 2 p.m. today, Russell Graham, a State Police spokesman, said.

Troop A headquarters is at 17801 Highland Road.

Graham encouraged officers from other law enforcement agencies, firefighters and the motoring public to stop by and donate.

The donation process takes only an hour, is safe and could help save a life, Graham said.

<http://www.theadvocate.com/news/44338452.html>

[\[BACK TO TOP\]](#)

## **New Orleans Mayor Nagin To Meet With Gov. Jindal and Louisiana Leaders**

**BayouBuzz | 05.05.09**

Written by: BayouBuzz Staff

### **ENSURE ACCESS TO PHYSICAL AND MENTAL HEALTH SERVICES**

The continued growth and development of the City's biomedical district is a key economic development initiative that will contribute significantly to the future of New Orleans, Louisiana, and the entire region. The implementation of planned projects in this district will transform employment and the economics of New Orleans for generations and make the city and Louisiana competitive with other leaders in medical treatment and research.

New Orleans faces significant healthcare needs that must be addressed simultaneous to the development of the new biomedical district. Since Hurricane Katrina, New Orleans has lacked adequate medical and mental health infrastructure as well as a sufficient supply of medical professionals. This has led to an increased dependence on emergency room services for conditions that could normally be addressed more easily and with less expense by primary care physicians. It also has led to an overall decrease the access to services for our poorest citizens and residents without health insurance.. Mental health services also are in critical need, since inadequate inpatient beds and supportive services are available for poor citizens

The City of New Orleans opposes both the closure of the New Orleans Adolescent Hospital and the proposed reductions in staffing and services at the LSU Interim Hospital. These cuts would be a devastating blow to a system that is already under tremendous stress and struggling to recover. The City supports the constitutional and statutory changes that would give the Governor flexibility in cutting protected programs so that critical needs for healthcare and education are not sacrificed.

Enhancing Healthcare Services for Uninsured and Medicaid Patients; Sen. Heitmeier

· SB 51-Authorizes the Department of Health and Hospitals to accept intergovernmental transfers from local governing bodies for the purpose of enhancing the provision of health care services for uninsured and Medicaid patients.

[http://www.bayoubuzz.com/News/Louisiana/Government/New\\_Orleans\\_Mayor\\_Nagin\\_To\\_Meet\\_With\\_Gov.\\_Jindal\\_and\\_Louisiana\\_Leaders\\_8785.asp](http://www.bayoubuzz.com/News/Louisiana/Government/New_Orleans_Mayor_Nagin_To_Meet_With_Gov._Jindal_and_Louisiana_Leaders_8785.asp)

[\[BACK TO TOP\]](#)

## **Jindal's top priorities: saving chicken plant and defeating unemployment expansion**

**The Times-Picayune | 05.04.09**

by Jan Moller, The Times-Picayune

BATON ROUGE - Gov. Bobby Jindal said this morning that his top legislative priorities for the coming week are passing a bill that lets money from an economic-development fund be used to support a North Louisiana chicken plant, and defeating legislation that would clear the way for Louisiana to accept \$98 million in new federal financing for unemployment benefits.

Jindal also expressed support for indexing the state's homestead exemption to the rate of inflation, and put some daylight between himself and House Speaker Jim Tucker on the issue of how a proposed New Orleans teaching hospital should be governed.

His comments came during a morning briefing with reporters as part of a stepped-up effort by his administration to exert stronger influence over a legislative process that sometimes got away from him last year, when lawmakers voted themselves a pay raise and approved a deep income-tax cut despite his early objections.

The governor has made no secret of his opposition to accepting the expanded unemployment benefits, made available to Louisiana and other states as part of the \$787 billion economic stimulus law, arguing that it would eventually force an unemployment tax increase on some businesses. But some Democrats have promised to force the issue.

House Bill 610 by Rep. Cedric Richmond, D-New Orleans, gets its first hearing Wednesday in the House Labor & Industrial Relations Committee, and its fate should provide another indication in this young session on whether lawmakers are willing to buck the governor on a key priority.

**On the hospital issue, Jindal said he supports the creation of an independent board that would have representatives from Louisiana State University, Tulane and other local institutions that would use the hospital as a training ground. He also said the board should have enough independence that it could incur debt on its own, without a state guarantee.**

**Tucker, R-Algiers, whose House Bill 830 sailed out of the House Health and Welfare Committee last week and is scheduled for floor debate on Thursday, has proposed creating a new board within the Department of Health and Hospitals that would not include any university representation. Instead, it would be made up of community stakeholders chosen by the governor and legislature based on recommendations submitted by health-care interests and good-government groups.**

On property taxes, the governor said indexing the homestead exemption, which currently leaves the first \$75,000 of a home's value untaxed, "certainly seems reasonable." Rep. Fred Mills Jr., D-St. Martinville, has proposed such an indexing in House Bill 452, which is up for debate today in the House Ways and Means Committee but is not likely to face a vote.

But he was skeptical of House Bill 252 by Rep. Kevin Pearson, R-Slidell, that would broaden the property tax base by taxing the first \$10,000 of a home's assessed value and then leave the next \$75,000 untaxed. Doing so "would add expense and complexity" to the tax-collection process, the governor said.

Jindal also:

- Reiterated his support for House Bill 720 by Rep. Jane Smith, R-Shreveport, which provides a two-month amnesty period next year where tax scofflaws would waive some penalties for people who pay overdue tax bills.
- Gave his blessing to House Bill 639 by Rep. James Morris, R-Oil City, which would repeal the motorcycle helmet requirement for adults. Jindal said the state's helmet law, which has strong support from public health and safety advocates, is an economic drain on the state because it makes some

motorcyclists avoid Louisiana. The bill had been scheduled for debate this morning in the House Transportation and Infrastructure Committee, but it was postponed.

[http://www.nola.com/politics/index.ssf/2009/05/jindal\\_says\\_chicken\\_plant\\_and.html](http://www.nola.com/politics/index.ssf/2009/05/jindal_says_chicken_plant_and.html)

[\[BACK TO TOP\]](#)

## **Nonprofit groups ask lawmakers for state money**

**Daily Comet | 05.04.09**

MELINDA DESLATTE

Associated Press Writer

BATON ROUGE — The requests for state budget earmarks continue to roll in despite Louisiana's money woes.

Museums, health care groups, education organizations and an array of other nongovernment entities pleaded their cases Monday to the House Appropriations Committee, asking for state dollars in the 2009-10 budget even as state agency programs are on the chopping block.

Over hours of testimony, the nonprofits said they understand the state budget problems but then argued how their favored causes deserve money, can create jobs, can help the needy or can improve the state.

The dollar amounts were small considering the size of the state's proposed \$26.7 billion budget for the fiscal year that begins July 1.

Dawn Pitkin asked for \$275,000 for the Louisiana chapter of the ALS Association to help provide home-based care services to people with the nerve cell-damaging illness commonly called Lou Gehrig's disease.

Pitkin held the arm of her husband, Greg, who was sitting in a wheelchair unable to speak about the crippling disease himself.

"He has been robbed of the ability to work, walk, speak, dress himself, just about anything," Pitkin said, before describing the shower chair and wheelchair controller the ALS Association has provided her husband.

Committee members were sympathetic to Pitkin and others asking for government money.

"We're looking under every rock to try to help us find some money," said Rep. Noble Ellington, D-Winnsboro.

The committee didn't take any action on Monday's testimony but will consider whether to add the earmarks to the 2009-10 budget before wrapping up its work Thursday and sending the budget bill to the full House for debate.

House leaders have said they expect far fewer non-governmental agencies to get into next year's budget because of a \$1.3 billion drop in state general fund revenue. Lawmakers are considering deep budget cuts to services and have fewer dollars to shuffle to pet projects.

Those budget realities haven't stopped the requests, however.

**Former Senate President Don Hines asked for \$1.9 million in aid for rural hospitals to continue telemedicine consultations for specialty care, a mobile mammography van that provides breast cancer screenings around north Louisiana and electronic medical records. The program links rural hospitals to services at the LSU Health Sciences Center in Shreveport.**

Others asked for money for after-school programs, an organ donor awareness program, truancy prevention initiatives, economic development foundations and public television in southeast Louisiana.

"These organizations are contributors to our communities, and the investments that are made in the nonprofit sector continue to have returns beyond the initial investment," said Ann Williamson, representing the Louisiana Association of Nonprofit Organizations.

The New Orleans Museum of Art asked for \$1 million to market an upcoming exhibit that will feature original works from The Walt Disney Co.'s animation studio.

Darrell Hunt, a lobbyist representing the museum, said projections showed the state would get its money back in the form of state tax revenue within four months. Lawmakers said the investment sounded like a good one.

<http://www.dailycomet.com/article/20090504/ARTICLES/905049875/1212?Title=Nonprofit-groups-ask-lawmakers-for-state-money->

[\[BACK TO TOP\]](#)

## **H1N1 Flu (Swine Flu) Infections Alert for Institutions of Higher Education Centers for Disease Control and Prevention | 05.01.09**

CDC has identified cases of H1N1 influenza virus infection in people in a number of states. CDC is working with local and state health agencies to investigate these cases.

The same virus has been found in people in Mexico, the United States and Canada and is being reported in other countries as well. Symptoms for H1N1 flu have included fever, headache, upper respiratory tract symptoms (cough, sore throat, rhinorrhea), myalgia, fatigue, vomiting, or diarrhea. Illnesses among persons infected with H1N1 flu virus have mostly been treated at home, but some cases have been hospitalized and deaths have been reported. It is anticipated that many more cases, including cases that require hospitalizations and some that result in death, will occur. Most people will not have immunity to this new virus and, as it continues to spread, more cases are expected in the coming days and weeks.

CDC has implemented its emergency response. The agency's goals are to reduce transmission and illness severity, and provide information to help health care providers, public health officials and the public address the challenges posed by the new virus. The World Health Organization has raised the worldwide pandemic alert level. In response to these developments, CDC is recommending that states, communities, institutions and individuals assess their emergency response plans and capacities.

For post secondary institutions of higher education, CDC recommends that you:

- \* Review your institutions plans for responding to a public health emergency and make sure they are up to date.

- \* Know local/state plans for institutions of higher education in the event of a mild or severe disease outbreak. This information may be available from state or local health authorities External Web Site Policy..External Web Site Policy.

- \* Ask your campus health center to develop and implement a system to track and report (to the local health department) influenza-like illness (an illness with at least fever and sore throat or cough) among students.

- \* Persons with influenza-like-illness should consult their physician and the institution should consult with their local or state health department for recommendations on identifying persons with H1N1 flu and ways to prevent spread of this virus.

- \* Institutions of higher education should promote everyday preventive actions for students and staff: 1) Cover your nose and mouth with a tissue when you cough or sneeze. 2) Throw the tissue in the trash after you use it. 3) Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective. 4) Avoid close contact with sick people. 5) Avoid touching your eyes, nose or mouth. Germs spread this way. 6) If you get influenza-like illness symptoms, stay home from work or school except to seek medical care and limit contact with others to keep from infecting them.

- \* Monitor the postings on the CDC web site and that of your local and state health departments and follow local health department advice about possible closure of colleges and universities

- \* Contact your local public health department if you have questions or suspected cases.

Institutions of higher education can help protect the health of their staff and their students by calling attention to the every day preventive actions that can be taken to prevent the spread of influenza. (Please consider posting or distributing the everyday actions to prevent the spread of influenza attached with this memo across campus including residential dorms).

Review and implement, if needed, CDC Guidelines and Recommendations for Preventing the Spread of Influenza (the Flu) in a declared pandemic. (See appendix 7, Pandemic Influenza Community Mitigation Interim Planning Guide for Colleges and Universities External Web Site Policy.)

<http://cdc.gov/h1n1flu/college-alert.htm#linkPolicy#linkPolicy>

[\[BACK TO TOP\]](#)

## **La. has no new cases of suspected swine flu**

**The Advocate | 05.05.09**

By SANDY DAVIS

Advocate staff writer

There were no new confirmed cases of swine flu in Louisiana on Monday, but state health officials were still waiting for the Centers of Disease Control and Prevention in Atlanta to test 21 samples from Louisiana.

"The CDC is telling states that they're confirming the swine flu virus in approximately 99 percent of the cases they are testing," Gov. Bobby Jindal said Monday at a news conference at the Governor's Mansion.

Jindal said the CDC warned the state to expect a "high rate of confirmation" for the swine flu virus in the samples the state has sent to the federal lab.

So far, Louisiana has seven confirmed cases of swine flu: five of them are students in Lafayette Parish, one is a student in Ascension Parish and one is a student at a New Orleans school.

But on Monday, the CDC erroneously listed Louisiana as having 14 confirmed cases. That misinformation stayed on the agency's Web site for most of the day.

"That was a clerical error," said Lauren Mendes, a spokeswoman for the state Department of Health and Hospitals. "They double-counted our cases."

It is taking the CDC, which is swamped with samples from nearly every state, two to four days to finish testing each sample.

Of the five suspected Louisiana samples sent to the CDC on Monday, four are from students in Lafayette Parish and one is from an adult in Ascension Parish, Jindal said.

Those four Lafayette Parish students attend schools already closed because of the outbreak, Jindal said. Two attend Our Lady of Fatima School, one attends St. Pius Elementary School, and the last one attends Cathedral-Carmel School.

Also on Monday, St. Jude the Apostle Elementary School in Baton Rouge closed when an eighth-grade student tested positive for type A flu.

Swine flu is a subtype of type A flu.

"We don't think it's swine flu," said Karen Jakuback, principal of St. Jude. "But we want to be cautious."

The student attended a class field trip on Friday and a middle school dance on Saturday, Jakuback said.

The school is to be cleaned and won't reopen until the child's test results are known, she said.

In Ascension Parish, about 200 children were absent from Lake Elementary School in St. Amant, said Johnny Balfantz, a school district spokesman.

The community learned Sunday that one of its students, a 10-year-old in the fifth grade, tested positive for swine flu, he said.

"We normally have 50 to 75 kids absent," Balfantz said of the larger-than-usual number of absences.

DHH recommended the school stay open because the child was kept at home when his symptoms began and no other child in the school has displayed flu-like symptoms, Balfantz said.

"All of his symptoms are gone and he's ready to come back to school, but he can't until the state's health officials clear him," Balfantz said.

He said state health officials told school officials the child did not contract the disease at the school.

Jindal said investigators were still trying to figure out how the child contracted the disease.

In the meantime, Balfantz said, the school has been cleaned by a professional company.

Audubon Charter School in New Orleans did close on Monday after that district also learned on Sunday that one of its children has swine flu.

While the state recommended the school stay open, school officials decided to close it Monday through Wednesday while the school is being sanitized, according to a statement issued by the school.

"I think they're scaring too many people needlessly," Steve Mumphrey, of Baton Rouge, said of the decision by some schools to close.

Mumphrey had stopped at St. Jude the Apostle Elementary on Monday to pick up his granddaughter, Casey Richardson, 11, when the school closed at 1 p.m.

"This flu is no worse than the regular flu, yet they're closing down schools," he said. "Now parents are having to take off work to get their kids.

"And the kids, well, they'll probably end up at the mall," he said.

<http://www.theadvocate.com/news/44338877.html?showAll=y&c=y>

[\[BACK TO TOP\]](#)

## **5 new cases of suspected swine flu show up in Louisiana**

**The Times-Picayune | 05.05.09**

by Darran Simon and Bill Barrow, The Times-Picayune

Ted Jackson / The Times-Picayune Workers head to disinfect another classroom Monday at Audubon Charter School after it was confirmed that a second-grader at the New Orleans school has the swine flu. The school will be closed until Thursday for cleaning.

Even as fears that swine flu would become a pandemic continued to wane, five possible new cases of the virus have been discovered in Louisiana, Gov. Bobby Jindal said Monday, bringing the total number of suspected cases to 21.

None of the new suspected cases is in the New Orleans area, which so far has one confirmed case and one suspected case.

Officials are still awaiting news from the Centers for Disease Control and Prevention on the suspected case, which involves a city employee. The city's lone confirmed case is a second-grader at Audubon Charter School, which will be closed until Thursday while a thorough cleanup is undertaken.

On Monday, a day after health officials confirmed the positive swine-flu test, custodial workers wiped down walls, desks, chairs, doorknobs and other parts of the charter school's Broadway campus.

School officials said they decided to close the school's Broadway and South Carrollton Avenue campuses for the three-day cleaning. Health officials did not require or recommend that the school close after the sample was confirmed, Audubon officials said.

"It's an extra precaution," Alisa Dupre, Audubon's operations manager, said Monday. "We have very young children that attend school here."

The two Audubon campuses serve more than 700 students.

"Our school is a safe place," Principal Janice Dupuy said.

Dupuy said the flu patient, who is 8, is recovering. "When I spoke to the mom on Friday, he was at home, playing and doing well," she said.

No one hospitalized

None of Louisiana's swine-flu patients has been hospitalized. All are being treated with antiviral drugs at home.

The Audubon student complained of feeling ill during school on Wednesday and the boy's mother took him out of school, officials said. He was tested that day at a nearby clinic.

The state's Office of Public Health alerted Audubon school administrators on Thursday evening that a student might have the swine flu. Dupre said the school alerted parents that night through an automated system that sends phone calls, e-mails and text alerts.

The boy's virus sample was sent to the CDC on Friday for confirmation, said Dr. Takeisha Davis, regional medical director with the state's Office of Public Health. Davis said health officials follow CDC guidelines that say school closures should be considered if there is one or more laboratory-confirmed or suspected cases at the campus. The CDC also recommends that closures should be considered in schools located in areas with clusters of confirmed or suspected cases of swine flu.

But the decision rests with school and health officials, she said.

Davis said the state didn't recommend the closure of Audubon last week because the student had been taken out of school from the onset of his symptoms, and because no other students or faculty member showed signs of illness.

After the alert went out Thursday evening, attendance at the school fell to about 50 percent on Friday, Dupre said.

"All suspected cases are treated as probable cases from the onset," Davis said. "Therefore there was no reason to change the recommendations once confirmed."

Response 'appropriate'

Dr. Corey Hebert, a pediatrician and an Audubon Charter board member, praised school and health officials.

"The response that was mobilized for containment of this virus was appropriate and much better than I thought it would be," Hebert said.

Hebert said the three-day closure for the cleaning "rids the facility of any live viruses on surfaces." He said three days is also enough time to monitor students for any symptoms.

The state has gotten results back for the first nine samples it sent to the CDC. Two cases -- one in St. Tammany Parish and the other in St. Martin Parish -- came back negative, officials said.

The other six cases of swine flu confirmed on Sunday include five students at Cathedral Carmel High in Lafayette and one 10-year-old student at Lake Elementary School in Ascension.

As of late Monday, Jindal said, health officials have identified five new suspected cases. That includes one adult in Gonzales and four students in Lafayette schools that have already been closed, the governor said.

State Health Secretary Alan Levine said, "We've been treating every suspect case as if it's positive."

Levine said the state is continuing efforts to secure the equipment necessary to test for H1N1, as the swine flu virus is known, locally. Under the current setup, officials try to rule out other known flu strains, then forward specimens to federal officials.

Jindal emphasized that residents should follow strict hygiene measures but he warned against unnecessary alarm. "At any time during active flu season, we would have thousands of Louisianians suffering from flu symptoms," he said.

[http://www.nola.com/news/index.ssf/2009/05/5\\_new\\_cases\\_of\\_suspected\\_swine.html](http://www.nola.com/news/index.ssf/2009/05/5_new_cases_of_suspected_swine.html)

[\[BACK TO TOP\]](#)

## **Delay in tax cut proposed**

**The Advocate | 05.05.09**

By SARAH CHACKO

Advocate Capitol News Bureau

Lt. Gov. Mitch Landrieu said Monday that legislators should consider delaying a tax cut, which would essentially result in a \$359 million tax increase, to mitigate proposed budget cuts.

Landrieu said the repeal of the so-called Stelly Plan, which would give middle- and upper-income residents a tax reduction, and other tax cuts being proposed this session, does not take into account budget deficits projected for the next three years.

State services face a \$1.3 billion drop in revenue for the financial year that begins July 1.

Landrieu, a Democrat, said if the trend continues for two more years, the loss could be as great as \$6 billion.

“Most of the people who look at these numbers over a three-year period of time, and look at the level of tax cuts that have been put in place, can’t find a way to match those numbers up,” Landrieu told the Press Club of Baton Rouge.

The Stelly measure repealed the state sales tax on groceries and utilities. It also compressed state income tax brackets to offset the loss of tax revenue.

The Stelly rollback was approved overwhelmingly last year by the Legislature, when state finances were booming. State government is expected to lose \$359 million in tax revenue during the next budget year and at least \$250 million and rising each year thereafter as a result of the rollback.

Most taxpayers who benefit will see the effects of the Stelly tax reduction when they fill out their state income returns in the spring of 2010.

Republican Gov. Bobby Jindal has said he would oppose any effort to slow the tax breaks. House Appropriations Committee Chairman Jim Fannin, D-Jonesboro, said last week that talk of delaying the tax cut has failed to gain political traction.

Citing the state’s smoking and cancer statistics, Landrieu said he also thinks an increase on the cigarette tax could bring more money to the state coffers and reduce health-care costs.

As a state representative in 2002, Landrieu was the lead author of the last cigarette tax that passed.

“I wanted to put a serious dent in the fight against cancer in the state of Louisiana,” he said.

A House committee last week rejected a \$1 per pack cigarette tax increase, which would have raised about \$200 million per year.

Jindal has said that he would oppose any new taxes.

House Speaker Jim Tucker, R-Terrytown, said he doesn’t agree with Landrieu’s idea.

“Giving people their income taxes back is the best kind of stimulus,” Tucker said.

State Republican Party Chairman Roger Villere said that in the long run, delaying the repeal would not be good for the state.

“A lot of us in business and individuals are hurting,” Villere said. “Even though we have to make hard decisions on what to cut and what parts of government we need to slow down, those decisions need to be made.”

Landrieu said that when the Stelly tax was repealed, legislators viewed the state as having a surplus and had the opportunity to grant some relief to taxpayers without hurting higher education and health care.

“But unfortunately, something funny happened on the way to the farm,” he said, “and the world changed dramatically.”

Landrieu laid much of the blame for the current deficit on the Jindal administration and the Legislature, noting an increase in state spending and simultaneous tax cuts.

“And when you add those two numbers up, those two numbers alone are almost enough ... to basically identify the deficit that we have facing us today,” he said.

Villere said he did not see Landrieu putting up a fight to slow the spending. Now the governor is trying to ensure that agencies do not rely on one-time dollars, like the federal surplus, to keep ongoing programs afloat, he said.

Landrieu said he did not know how the Legislature would delay the Stelly repeal, but it would largely depend on the governor and the will of legislators.

“Generally in Louisiana, the governor gets what he wants,” he said.

Some information for this story was provided by Michelle Millhollon of The Advocate’s Capitol News Bureau.

<http://www.theadvocate.com/news/44339137.html>

[\[BACK TO TOP\]](#)

## **Our Views: Budget crisis from tax cuts**

**The Advocate | 05.05.09**

Advocate Opinion page staff

Who knew the stock market was going to tank? Who knew the price of oil would plummet?

Maybe many did not foresee the Wall Street credit crisis, at least in the form that it took. But many folks in Louisiana, including the Public Affairs Research Council, warned state leaders about the over-reliance on oil revenue and the looming problem of the budget as hurricane recovery spending peaked and began to decline.

PAR's warnings of less than a year ago read as though they were taken from today's headlines. And now PAR is in the position of saying "told you so." Although the organization is too nice to use exactly that phrase in a new analysis.

"The FY (fiscal year) 10 executive budget proposes more than \$400 million in cuts to health care spending and more than \$200 million in cuts to higher education. Legislators and administration officials are claiming the cuts are both regrettable and unavoidable," PAR noted "Yet, they could be tempered by considering all options, including the delay of scheduled tax cuts."

Both Govs. Kathleen Blanco and Bobby Jindal contributed to today's problems by signing into law major tax cuts, repealing the income tax portions of the so-called Stelly tax reforms of 2002.

The Legislature in 2007 began a phased-in restoration of tax breaks for the most affluent taxpayers, called "excess itemized deductions." Eliminating the tax break was part of the original Stelly tax plan. Phasing it out is scheduled to add another \$100 million to the budget shortfall in the coming fiscal year. That particular tax cut benefits the best-off taxpayers, those itemizing deductions on their federal returns. Only about 20 percent of state taxpayers itemize.

Jindal signed another bill in 2008 — less than a year ago — that will cut another \$350 million or more from income tax collections in the fiscal year that begins July 1.

The governor talks about building a knowledge-based work force, but he cuts the colleges that are supposed to be educating that work force. That's a direct consequence, as college leaders said this year, of tax-cut mania in the administration.

In his budget speech to the Press Club of Baton Rouge, Jindal enjoined the Legislature to be fiscally responsible and avoid eroding the state's tax base with breaks that are not funded by cuts in the budget.

But PAR's "told you so" correctly notes the failure of the state's leaders to look ahead. They can't say they weren't warned.

<http://www.theadvocate.com/opinion/44337707.html>

[\[BACK TO TOP\]](#)

**EDITORIAL: Vigilance on swine flu**  
**The Times-Picayune | 05.05.09**

Louisiana's seven confirmed cases of swine flu -- including one in New Orleans -- means that the virus is no longer a remote concern.

But fortunately, none of the Louisiana cases has been severe enough to require hospitalization. And state health officials are clearly acting aggressively to keep the virus in check.

"We have been treating every suspect case as if it could be the H1N1 virus and acted appropriately to recommend school closures when necessary," said Alan Levine, secretary of the state Department of Health and Hospitals.

Advertisement

That's the right approach. Audubon Charter School in Uptown New Orleans has suspended classes until Thursday because a student there is the confirmed New Orleans case. Several schools have been closed in Lafayette, where the other six confirmed cases have been identified.

The epidemic is declining in Mexico, and that's good news, along with signs that this strain is not as virulent as initially feared. But this new viral threat still warrants careful watching and quick action, and it's reassuring that both are in place here now that the flu has arrived.

<http://www.nola.com/news/t-p/editorials/index.ssf?/base/news-5/1241501533168030.xml&coll=1>

[\[BACK TO TOP\]](#)

## **Developments on swine flu worldwide**

**The Times-Picayune | 05.05.09**

The Associated Press

(AP) — Key developments on swine flu outbreaks, according to Centers for Disease Control and Prevention, World Health Organization, and government officials:

Deaths: 26 confirmed in Mexico and one confirmed in U.S., a toddler from Mexico who died in Texas.

Confirmed sickened worldwide, 1,445: 802 in Mexico; 380 in U.S.; 140 in Canada; 57 in Spain; 27 in Britain; eight in Germany; six in New Zealand; four in Israel, Italy and France; two each in El Salvador and South Korea; one each in Austria, Costa Rica, Colombia, Denmark, Hong Kong, Ireland, the Netherlands, Portugal, South Korea and Switzerland.

U.S. health officials reconsider advice about closing schools because of swine flu. The government now recommends that schools with confirmed cases of swine flu close for at least two weeks.

New York City high school that had 45 students with confirmed swine flu cases reopens.

Mexico to allow most businesses to reopen Wednesday, universities to reopen Thursday. Mexico City cafes, museums and libraries to reopen this week; schools nationwide to reopen next week after inspections are completed.

A plane chartered by the Mexican government lands in Shanghai, the first of several stops in China on a flight to bring 70 quarantined Mexican travelers home. China sends its own plane to retrieve Chinese nationals stranded in Mexico. Mexico also criticizes Argentina, Peru and Cuba for banning flights.

A school spokeswoman says a group of 29 University of Montreal students and their professor has been quarantined at a hotel in the northern Chinese city of Changchun since the weekend over swine flu fears, although none has exhibited any symptoms of the virus.

Hong Kong, where severe acute respiratory syndrome killed 299 in 2003, ordered weeklong quarantine of downtown hotel where a Mexican tourist was confirmed to have the illness, trapping 274 guests and employees inside.

World Health Organization says slaughtering pigs unnecessary because virus is being spread through humans; says swine herd in Canada likely infected by farmworker who returned from Mexico.

U.S. Meat Export Federation, which represents pork and beef interests abroad, estimates that U.S. pork exports have dropped about 10 percent since the swine flu scare started.

Visitation at all California prisons is suspended after an ill inmate at Centinela State Prison in Imperial County is tested for swine flu.

<http://www.nola.com/newsflash/index.ssf?/base/international-2/1241514707193820.xml&storylist=health>

[\[BACK TO TOP\]](#)

## **Bill to ban school clinics draws fire**

**The Times-Picayune | 05.05.09**

By Jan Moller  
Capital bureau

BATON ROUGE -- A proposal to outlaw school-based mobile dental clinics drew opposition Monday from the Federal Trade Commission, which calls the bill an anti-competitive measure that would reduce access to care for poor children.

House Bill 687 by Rep. Kevin Pearson, R-Slidell, which is scheduled for its first hearing this morning in the House Health and Welfare Committee, is aimed at curbing the growth of mobile dental clinics that provide services to children, most of whom are covered by Medicaid.

Supporters of the bill, which is being pushed by the Louisiana Dental Association, say dental care is best delivered in a "fixed, permanent" location such as a dentist's office, and that the growing trend of mobile clinics imperils the "lifelong relationship" between families and their dentist.

Office visits "ensure that what we have available to the under-served is full, comprehensive and quality care dentistry," said Ward Blackwell, executive director of the dental association.

But opponents, including the Louisiana Primary Care Association and the state chapter of the American Academy of Pediatrics, say that it would take away one of the few opportunities poor children enrolled in Medicaid have to receive dental care.

About 37 percent of Medicaid-eligible children in Louisiana have seen a dentist, according to the Department of Health and Hospitals. But the number of Louisiana dentists willing to see Medicaid patients has grown in recent years, as lawmakers have increased reimbursement rates.

A six-page letter from the FTC, the federal agency charged with policing anti-competitive practice, said there is no evidence that children are harmed from receiving services in school.

"We are concerned that if the proposed legislation becomes law, fewer students -- especially the indigent and economically disadvantaged -- will receive dental care," the agency wrote.

Requiring parents to seek care for their children through a dental office, rather than having the services provided in school, has the potential to reduce access since some parents have trouble taking time from work or arranging transportation, the agency wrote.

"Faced with such obstacles, it is likely that many children will not receive dental care at all," the agency wrote.

<http://www.nola.com/news/t-p/capital/index.ssf?/base/news-7/1241501503168030.xml&coll=1>

[\[BACK TO TOP\]](#)

## **Community meeting tonight on closure of New Orleans Adolescent Hospital**

**The Times-Picayune | 05.05.09**

by The Times-Picayune

A meeting will be held tonight in New Orleans to give members of the community an opportunity to voice their opinions on the planned closure of the New Orleans Adolescent Hospital, Uptown facility that provides outpatient and inpatient mental health services to minors and adults

The meeting will be held from 6 to 8 p.m. in City Council Chambers and will be attended by members of the City Council, city administration officials, local mental health experts and organizations.

The evening meeting time was specifically chosen to accommodate people who work or are otherwise unavailable during the day.

Last week members of the City Council were approached with the idea of holding an "after-hours public meeting" in City Council Chambers during a meeting in the Lower 9th Ward. Participants at that meeting expressed frustration that they were often not able to leave work and attend public hearings during the day.

Councilman-at Large Arnie Fielkow, along with Councilwomen Cynthia Willard Lewis and Cynthia Hedge-Morrell, agreed to help organize an evening public meeting.

Tonight's invited guests include Retired Judge Calvin Johnson of the Metropolitan Human Services District; Dr. Kevin Stephens of the City of New Orleans Health Department; Cecile Tebo of the New Orleans Police Department's Crisis Unit and other mental health care providers and experts.

The closing of NOAH is part of Gov. Bobby Jindal's proposed health care cuts. Jindal wants to fold NOAH into a facility in Mandeville.

[http://www.nola.com/news/index.ssf/2009/05/community\\_meeting\\_tonight\\_on\\_c.html](http://www.nola.com/news/index.ssf/2009/05/community_meeting_tonight_on_c.html)

[\[BACK TO TOP\]](#)

## **BR biotech company succeeds in drug test**

**The Advocate | 05.05.09**

By TED GRIGGS

Advocate business writer

Baton Rouge biotech startup Esperance Pharmaceuticals has cleared a major research hurdle by showing that its first cancer treatment drug sought out and destroyed ovarian cancer cells that had been transplanted in mice.

Esperance presented its preliminary findings at the American Association for Cancer Research's annual meeting in late April.

"This means a lot, in two ways," company President Hector Alila said. "One is it means the company, in terms of valuation, has improved dramatically."

Secondly, the successful preclinical trial is good news for LSU, which developed the technology; Louisiana's biotech industry; and the state as a whole, Alila said.

It's virtually impossible to start a biotech company and move a drug forward in clinical trials, Alila said.

Out of 5,000 to 10,000 compounds screened, only 250 make it to preclinical testing, according to the Pharmaceutical Research and Manufacturers of America. Of those 250 preclinical-tested drugs, only five enter human clinical trials; and only one of those wins the federal Food and Drug Administration's approval.

With the successful preclinical testing out of the way, Esperance is now preparing for a Phase I clinical trial, or tests that prove the drug is not harmful to humans, on ovarian cancer patients, Alila said. Esperance hopes to begin the Phase I testing as early as June or July.

Esperance's drug works by targeting a specific molecule on the surface of cancer cells then destroying the cell walls. The Esperance drug doesn't harm healthy cells.

In addition to ovarian cancer, Esperance, which has its headquarters and laboratories at the Louisiana Emerging Technology Center, says that the targeted molecule is present in a number of other cancers, including breast, prostate and testicular.

Esperance was founded on technology discovered and patented by scientists at the LSU Pennington Biomedical Research Center, the LSU Agricultural Center and LSU itself.

Esperance's drug could also improve safety, since it would offer a gentler alternative to radiation or chemotherapy, Alila said. Ovarian cancer has proven resistant to the latter courses of treatment.

Alila said the preclinical test results also showed Esperance's drug reduced a molecule used to track the presence of cancer. That biomarker is the same one used in human trials, he said.

Joseph F. Lovett, Esperance board chairman, said the company's success validates the strategy proposed three or four years ago.

That strategy involved making venture capital firm Louisiana Fund 1 the lead investor in Esperance, said Lovett, who is also the fund's managing director. The plan also required licensing technology from LSU; bringing in out-of-state investors; and hiring an experienced biotech manager.

Lovett said Esperance has enough funding to finish its Phase I testing.

Esperance presented its preclinical research at the American Association for Cancer Research annual meeting, which highlights the best and most exciting research in the field, association spokesman Jeremy

Moore said. Some 6,000 researchers, pharmaceutical companies, students and others present their findings at the global conference.

Moore said it's impossible to say how many of the 6,000 presentations will result in new treatment. Cancer treatment is a multidisciplinary field, with research involving everything from food to drugs to behavioral modification, he added.

<http://www.2theadvocate.com/news/business/44338702.html>

[\[BACK TO TOP\]](#)

## **Action delayed on "conscience in health care" bill**

**The Times-Picayune | 05.04.09**

by The Associated Press

BATON ROUGE -- Lawmakers have delayed action on a proposal that would protect doctors and pharmacists from civil and criminal penalties if they refuse to provide health care services because of religious or moral objections.

Members of the House Civil Law Committee say they support the intention of allowing health care providers to refuse to perform abortions or hand out emergency contraception. But they say the first draft of the bill was far too broad and could limit patients' access to blood transfusions and an array of medications far beyond the so-called "morning-after pill."

Democratic Rep. Bernard LeBas, from Ville Platte, agreed to a weeklong delay on a committee vote on House Bill 517 to limit its reach. Gov. Bobby Jindal supports the bill.

[http://www.nola.com/politics/index.ssf/2009/05/action\\_delayed\\_on\\_conscience\\_i.html](http://www.nola.com/politics/index.ssf/2009/05/action_delayed_on_conscience_i.html)

[\[BACK TO TOP\]](#)

## **WHO: Flu will continue to spread**

**The Washington Post | 05.04.09**

By Betsy Pisik

UNITED NATIONS — The head of the World Health Organization said Monday that swine flu will continue to spread, and she advised governments to undertake rigorous surveillance of the virus.

"We don't know how long we have until we move to phase 6," the top of the assessment scale for a global pandemic, said Dr. Margaret Chan, director-general of the Geneva-based WHO. "We are not there yet."

Phase 6 means the virus is transmitted person-to-person in at least two separate geographical areas. The scale was created in 2005, after the spread of SARS and outbreaks of bird flu, which killed at least 220 people and decimated Asian poultry farms.

The swine flu virus caused the closure of a number of schools in the New York area, after pupils were sickened by the virus.

St. Francis Preparatory, the New York City school whose pupils account for roughly 40 of the state's 63 confirmed cases, reopened Monday with visits by Mayor Michael Bloomberg and scores of reporters.

As of Monday afternoon, the WHO has confirmed 1,003 cases of swine flu, Dr. Chan told the U.N. General Assembly via videolink from Geneva.

The WHO number is significantly lower than most estimates because it counts only those cases analyzed in its own laboratories.

The global health agency has verified 286 cases in the United States, and 506 in Mexico, where the virus has killed 19.

The Centers for Disease Control and Prevention on Monday also reported 286 confirmed cases, in 36 states. The only U.S. fatality to date is a Mexican toddler who was visiting relatives in Texas.

The agency also said it will issue guidelines for clinics to identify and treat those with the new H1N1 virus and to set priorities for care and treatment. All 50 states by Sunday should have received flu medicine from the national stockpile, the agency also said.

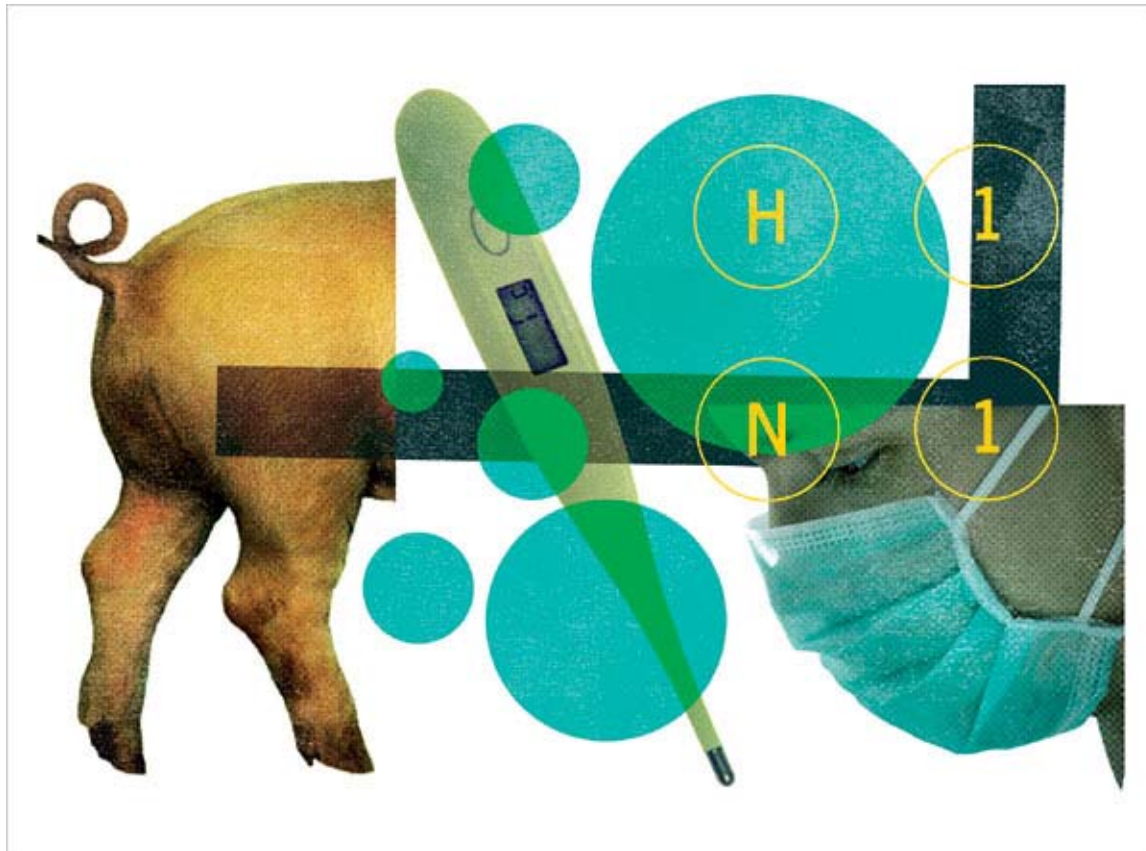
The following is the breakdown among states.

Alabama 4, Arizona 17, California 30, Colorado 7, Connecticut 2, Delaware 20, Florida 5, Idaho 1, Illinois 8, Indiana 3, Iowa 1, Kansas 2, Kentucky 1, Louisiana 14, Maryland 4, Massachusetts 6, Michigan 2, Minnesota 1, Missouri 1, Nebraska 1, Nevada 1, New Hampshire 1, New Jersey 7, New Mexico 1, New York 73, North Carolina 1, Ohio 3, Oregon 3, Pennsylvania 1, Rhode Island 1, South Carolina 15, Tennessee 1, Texas 41, Utah 1, Virginia 3 and Wisconsin 3. The infected Kentucky resident is hospitalized in Georgia.

<http://washingtontimes.com/news/2009/may/04/who-expects-flu-surge/>

[\[BACK TO TOP\]](#)

**Worry? Relax? Buy Face Mask? Answers on Flu**  
**The New York Times | 05.04.09**  
 By TARA PARKER-POPE



Stuart Bradford

Confused about swine flu? It's no wonder, with all the seemingly mixed messages coming out of health agencies and news organizations.

Last week, the World Health Organization raised the alert level for the virus, whose formal name is H1N1, indicating that a "pandemic is imminent." Now, health officials report that although the virus is widespread, most cases seem to be mild. People are being told not to panic, but schools in some communities remain closed.

It's good news that the imminent threat appears to be abating, but questions remain about the virus and whether it will re-emerge in the Southern Hemisphere or back in North America next fall. Here are some answers.

Regular flu kills 150 people a day during flu season. Why is everyone so concerned about this one?

This is a new and unusual virus. Most flu viruses have two genetic elements, but H1N1 has four: two types of swine flu, a bird flu and some human flu genes, said Dr. Neil O. Fishman, an infectious-disease specialist at the University of Pennsylvania. The virus has also shown that it can quickly infect large numbers, as it did at a school in Queens.

But it is a historical precedent that fuels most of the present concern. In the 1918 pandemic, the virus was relatively mild when it first appeared in the spring, but it came back with a vengeance in the fall. "That's what has a lot of the experts frightened," Dr. Fishman said. "When it recurs, there's the possibility it could be more virulent."

Flu typically preys on the old and on those whose immune systems are compromised. This one seems to be infecting more young people. Why?

It may be related to spring-break travel patterns or the fact that older people have more natural immunity after years of exposure to a variety of flu viruses, according to officials from the Centers for Disease Control and Prevention. In the 1918 flu pandemic and in the SARS outbreak in Asia this decade, the viruses appeared most deadly to young, healthy adults. The reason may be that the immune system of a healthy person responds with too much force when it detects a new virus, filling the lungs with fluid. This overreaction is called a “cytokine storm.”

In 1918, there were reports of people dying within hours of developing symptoms. “That doesn’t happen because you have a virulent flu,” said Laurie Garrett, senior fellow for global health at the Council on Foreign Relations and the author of “The Coming Plague: Newly Emerging Diseases in a World Out of Balance ” (Penguin, 1995). “That happens because the whole body went bananas.”

She added that even though many SARS patients were housed in the AIDS wards of hospitals, patients with H.I.V. and AIDS apparently did not contract the disease, suggesting that the real threat was a strong immune response rather than the symptoms of the virus itself.

I am coughing and feverish. Should I be tested for swine flu?

Most people who exhibit flu symptoms will not be tested for H1N1. There are a limited number of testing sites that can confirm a case, and whether you have swine flu or another type of flu, the medical advice is the same. Call your doctor to see if he or she considers you a candidate for an antiviral treatment like Tamiflu. In some cases, a doctor may order a rapid test.

“Are you getting better or are you getting worse?” said Dr. Michael R. Anderson, chief medical officer for the University Hospitals Case Medical Center in Cleveland. “If you’ve got a low-grade temp and a cough for a few days, wait it out. If you’re into that second day of symptoms and your fever is 103, you’re coughing every five minutes to the point of respiratory distress, shortness of breath and you can’t keep things down, I don’t care what the virus is. I would seek medical treatment.”

Don’t confuse flu with other respiratory illnesses. One characteristic of flu is that it does not creep up on you over a few days. “Give yourself the sledgehammer test,” Ms. Garrett said. “Are you vaguely off and then all of the sudden it feels like someone just whacked you over the head? That’s flu.”

Are there reasons to be less worried about swine flu now than a week ago?

Yes. In recent days, genetic sequencing analyses of this flu have suggested it is not as virulent as suspected. It lacks certain proteins and amino acids that would make it as deadly as other flus. And it appears similar enough to other common strains that most people may have some immunity. Researchers have even begun to speculate whether this year’s flu vaccine, which protected against a form of H1N1 flu, may have offered partial protection against the swine version.

Should I buy a face mask just in case?

The public health officials I interviewed are not stocking up on personal supplies of face masks for family members. “I haven’t brought any home,” Dr. Fishman said.

Face masks aren’t particularly effective against the spread of flu. The main effect may be “social distancing”: masks scare people away from one another.

If the flu does progress to a pandemic, the most effective response will be to limit public gatherings. In 1918, for example, the outbreak in St. Louis was mild, because the authorities closed schools, churches and theaters. Meanwhile, Philadelphia, which had one of the highest death rates, held a war bond parade at the start of the outbreak.

“That’s circumstantial, but it’s the type of thinking that’s behind the community mitigation strategies,” Dr. Fishman said.

Now that the swine flu scare seems to have died down, does this mean we all overreacted?

“It’s the classic problem in public health, trying to prove a negative,” Ms. Garrett said. “If, after an intervention, nothing happens, then everybody says, ‘What was the big deal?’ ”

But the course swine flu will take in the Southern Hemisphere — and, this coming fall, in the Northern Hemisphere — still isn’t clear. And it’s worth considering what might have happened if public health officials hadn’t sounded the alarm.

“I think the whole world should be saying, ‘Gracias, amigos,’ to the Mexicans for the tremendous sacrifice they have made,” Ms. Garrett said. “That may have stopped what otherwise would have been a serious pandemic.

“Some people will look back and say: ‘Wasn’t that ridiculous? Didn’t we overreact?’ But in New Orleans, wouldn’t we have preferred an overreaction that built too many levees too tall, than doing nothing and allowing the city to be flooded?”

<http://www.nytimes.com/2009/05/05/health/05well.html?ref=health>

[\[BACK TO TOP\]](#)

**10 Genes, Furiously Evolving**  
**The New York Times | 05.04.09**  
 By CARL ZIMMER



Joe Raedle/Getty Images

**PREPARED Doctors wearing protective gear with a possible flu patient in Mexico City.**

Evolutionary biology may sometimes seem like an arcane academic pursuit, but just try telling that to Gavin Smith, a virologist at Hong Kong University. For the past week, Dr. Smith and six other experts on influenza in Hong Kong, Arizona, California and Britain have been furiously analyzing the new swine flu to figure out how and when it evolved.

The first viruses from the outbreak were isolated late last month, but Dr. Smith and his colleagues report on their Web site that the most recent common ancestor of the new viruses existed 6 to 11 months ago. "It could just have been going under the radar," Dr. Smith said.

The current outbreak shows how complex and mysterious the evolution of viruses is. That complexity and mystery are all the more remarkable because a virus is life reduced to its essentials. A human influenza virus, for example, is a protein shell measuring about five-millionths of an inch across, with 10 genes inside. (We have about 20,000.)

Some viruses use DNA, like we do, to encode their genes. Others, like the influenza virus, use single-strand RNA. But viruses all have one thing in common, said Roland Wolkowicz, a molecular virologist at San Diego State University: they all reproduce by disintegrating and then reforming.

A human flu virus, for example, latches onto a cell in the lining of the nose or throat. It manipulates a receptor on the cell so that the cell engulfs it, whereupon the virus's genes are released from its protein shell. The host cell begins making genes and proteins that spontaneously assemble into new viruses. "No other entity out there is able to do that," Dr. Wolkowicz said. "To me, this is what defines a virus."

The sheer number of viruses on Earth is beyond our ability to imagine. "In a small drop of water there are a billion viruses," Dr. Wolkowicz said. Virologists have estimated that there are a million trillion trillion viruses in the world's oceans.

Viruses are also turning out to be astonishingly diverse. Shannon Williamson of the J. Craig Venter Institute in Rockville, Md., has been analyzing the genes of ocean viruses. A tank of 100 to 200 liters of sea water may hold 100,000 genetically distinct viruses. "We're just scratching the surface of virus diversity," Dr. Williamson said. "I think we're going to be continually surprised."

Viruses are diverse because they can mutate very fast and can mix genes. They sometimes pick up genes from their hosts, and they can swap genes with other viruses. Some viruses, including flu viruses, carry out a kind of mixing known as reassortment. If two different flu viruses infect the same cell, the new copies of their genes get jumbled up as new viruses are assembled.

Viruses were probably infecting the earliest primordial microbes. "I believe viruses have been around forever," Dr. Wolkowicz said.

As new hosts have evolved, some viruses have adapted to them. Birds, for example, became the main host for influenza viruses. Many birds infected with flu viruses do not get sick. The viruses replicate in the gut and are shed with the birds' droppings.

A quarter of birds typically carry two or more strains of flu at the same time, allowing the viruses to mix their genes into a genetic blur. "Birds are constantly mixing up the constellation of these viruses," said David Spiro of the J. Craig Venter Institute.

From birds, flu viruses have moved to animals, including pigs, horses and humans. Other viruses, like H.I.V. and SARS, have also managed to jump into our species, but many others have failed. "It's a very rare event when a virus creates a new epidemic in another species," said Colin Parrish of Cornell University. In Southeast Asia, for example, a strain of bird flu has killed hundreds of people in recent years, but it cannot seem to move easily from human to human.

Only a few strains of influenza have managed to become true human viruses in the past century. To make the transition, the viruses have to adapt to their new host. Their gene-building enzymes have evolved to run at top speed at human body temperature, for example, which is a few degrees cooler than a bird's.

Influenza viruses also moved from bird guts to human airways. That shift also required flu viruses to spread in a new way: in the droplets we release in our coughs and sneezes.

"If the virus settles down on the floor, then it's gone," said Peter Palese, chairman of microbiology at Mount Sinai School of Medicine. Winter is flu season in the United States, probably because dry air enables the virus-laden droplets to float longer.

Up to a fifth of all Americans become infected each flu season, and 36,000 die. During that time, the flu virus continues to evolve. The surface proteins change shape, allowing the viruses to evade the immune systems and resist antifu drugs.

Dr. Spiro and his colleagues have also discovered that human flu viruses experience a lot of reassortment each season. "Reassortment may be the major player in generating new seasonal viruses," Dr. Spiro said.

From time to time, a new kind of flu emerges that causes far more suffering than the typical swarm of seasonal flu viruses. In 1918, for example, the so-called Spanish flu caused an estimated 50 million deaths. In later years, some of the descendants of that strain picked up genes from bird flu viruses.

Sometimes reassortments led to new pandemics. It is possible that reassortment enables flu viruses to escape the immune system so well that they can make people sicker and spread faster to new hosts.

Reassortment also played a big role in the emergence of the current swine flu. Its genes come from several ancestors, which mainly infected pigs.

Scientists first isolated flu viruses from pigs in 1930, and their genetic sequence suggests that they descend from the Spanish flu of 1918. Once pigs picked up the flu from humans, that so-called classic strain was the only one found in pigs for decades. But in the 1970s a swine flu strain emerged in Europe that had some genes from a bird flu strain. A different pig-bird mix arose in the United States.

In the late 1990s, American scientists discovered a triple reassortant that mixed genes from classic swine flu with genes from bird viruses and human viruses. All three viruses — the triple reassortant, and the American and European pig-bird blends — contributed genes to the latest strain.

It is possible that the special biology of pigs helped foster all this mixing. Bird flu and human flu viruses can slip into pig cells, each using different receptors to gain access. “We call the pig a mixing vessel because it can replicate both avian and mammalian influenza virus at the same time,” said Juergen Richt of Kansas State University. “The mixing of these genes can happen much easier in the pig than in any other species.”

Fortunately, the new swine virus seems to behave like seasonal flu in terms of severity, not like the 1918 Spanish flu. “Right now it doesn’t have what it takes to be a killer virus,” Dr. Palese said. But could it? Dr. Palese said it was highly unlikely.

If the swine flu peters out in the next few weeks, virus trackers will still pay close attention to it over the next few months. As flu season ends in the Northern Hemisphere, the virus may be able to thrive in the southern winter or perhaps linger in the tropics, only to return to the north next fall. It will no doubt change along the way as its genes mutate, and it may pick up new genes.

The scientists will be watching that evolutionary journey with a mixture of concern and respect. “Viruses are incredibly adaptable,” Dr. Spiro said. “They have managed to exploit our modern culture and spread around the world.”

[http://www.nytimes.com/2009/05/05/health/05virus.html?\\_r=1&ref=health](http://www.nytimes.com/2009/05/05/health/05virus.html?_r=1&ref=health)

[\[BACK TO TOP\]](#)