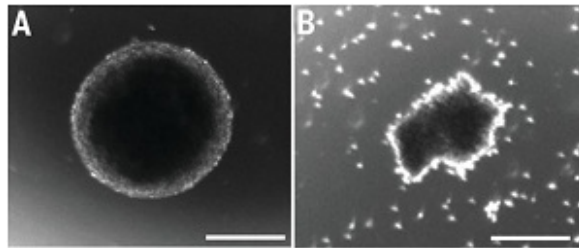


BRINGING OUT THE DEAD: WHAT WE KNOW ABOUT ZIKA VIRUS EFFECT ON HUMAN TISSUE



[(A) Control neurosphere
(B) Zika-infected neurosphere

Source: Science, 13MAY2016

<http://science.sciencemag.org/content/352/6287/816.full>]

Because unproven claims persist that chemical exposure – specifically the pyridine-based pesticide pyriproxyfen – causes the birth defects seen in children born to women exposed to Zika virus, I am bringing out the dead, laying out the bodies.

By ‘bodies’ I mean sharing here pictures of cells you see in the embedded photos from a peer-reviewed study published this May.

In these images you’ll see the damage done to human tissue in lab conditions.

No pyriproxyfen was present.

How Researchers Studied Zika

This is the methodology researchers used:

1) The researchers used human stem cells to create neurospheres – the kind of cells which turns into nerve and brain tissue in an actual embryo.

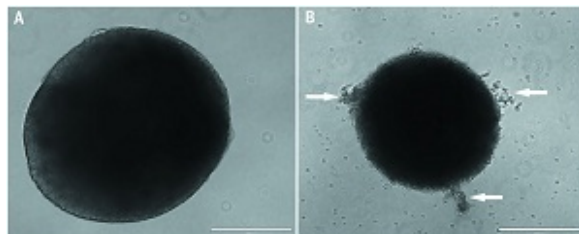
- 2) They set aside control samples of neurospheres which were not infected.
- 3) They infected test samples neurospheres with Brazilian Zika virus.
- 4) They observed the changes in the infected neurospheres.
- 5) They compared them to the uninfected control samples.
- 6) They wrote and published a report on their findings.

The image above is the best example from their report of the difference between Zika-infected cells and the uninfected test samples.

What Researchers Found in this Study

In short, Zika inhibits, damages, and kills infected neurospheres.

This is what we can expect to happen to a fetus' brain or nerve tissues when infected by Zika under the right conditions during early pregnancy.



[(A) Control mock-infected organoid
(B) Zika-infected organoid (damage noted at arrows)]

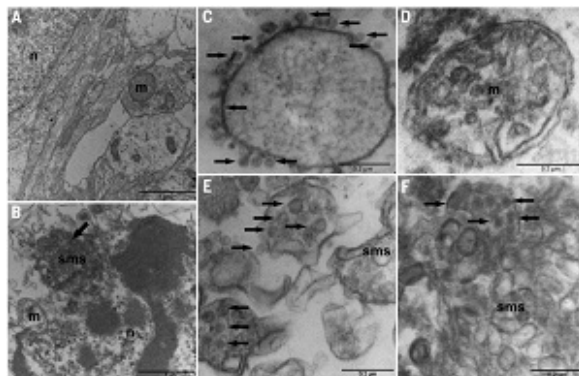
What Else Researchers Found in this Study

The researchers also conducted a very similar test on human brain organoids. These are not single neurospheres but neuro-tissue grown from stem cells so that they form a model like a tiny brain. Not a brain, a tissue-based model

of a brain.

They used the same six steps above using a mock-infected model, a Zika-infected model, and a dengue virus-infected model. (Dengue fever is caused by a flavivirus – the same family of viruses to which Zika and yellow fever belong.) Researchers found Zika virus caused similar destructive damage on these larger models while limiting their growth; they did not find the same damage or destruction in the dengue-infected models and none in the mock-infected control models. Zika alone damaged neurological tissue models.

Researchers also studied neural stem cells (NSCs) – the simplest neuro tissue model – and found similar results in which the Zika virus killed off NSCs. Studying NSCs, neurospheres, and organoids, the researchers observed Zika's actions on different stages of neuro tissue maturity. In each of these models, from the simplest (NSCs) to the most complex (organoids), Zika was destructive.



[ZIKV (Zika virus) induces death in human neurospheres. These micrographs show the ultrastructure of mock- and ZIKV-infected neurospheres after 6 days in vitro.

(A) Mock-infected neurosphere showing cell processes and organelles.

(B) ZIKV-infected neurosphere showing a pyknotic nucleus, swollen mitochondria, smooth membrane structures, and viral envelopes (arrow).

(C) Viral envelopes on the cell surface (arrows).

- (D) Swollen mitochondria.
- (E) Viral envelopes inside the endoplasmic reticulum (arrows).
- (F) Viral envelopes close to smooth membrane structures (arrows).]

Other Research on Zika Using Mouse Tissue

Three other studies published in May this year using mice or mouse tissues likewise showed evidences of neurological tissue and brain damage or growth suppression when infected by Zika virus. The studies came from research facilities in Brazil, China, and the U.S. – and in each study, *pyriproxyfen was not included*. The Zika-infected specimens showed damage and the control specimens did not.

The study from Brazil at the University of São Paulo also included research using human stem cells, comparing a Brazilian strain of Zika against an African strain:

Beltrão-Braga, Muotri, and their colleagues also grew brain organoids from human stem cells and infected these in vitro models with the Brazilian and African strains of the virus. In the human mini brains, both strains of the virus caused cell death, but the Brazilian strain appeared to also interfere with the formation of cortical layers. The virus didn't replicate in the brain organoids grown from chimpanzee stem cells, suggesting **it may have adapted to human tissue**, the researchers noted in their paper.

Emphasis mine. Research published earlier showed Zika has already mutated rapidly after arriving in Brazil, with at least nine variants found inside the last two years.

What's Next in Zika Research

What researchers don't yet know, for starters: How Zika works – how does it damage or kill cells? When exactly does the virus do the most damage? What mechanisms interfere with Zika's operations and can they be used in vaccines or drug therapy? What makes Zika different from dengue or other flavivirus? What does Zika do to adult neuro tissue to cause Guillain-Barre Syndrome? Which adults are most at risk? Will the different mutations in Brazil respond differently to vaccines? How long can humans carry live Zika virus? Has the virus mutated and become transmissible by bodily fluids or aerosol? These are just a few of the questions we still have about Zika.

There are some good guesses about Zika's mechanisms – like this hypothesis focusing on vitamin A storage in the liver, which also suggests Zika may negatively affect liver cells (yet another avenue of research needed). But will a vaccine targeting this activity work for other flavivirus, too? What if this guess is wrong; are there other approaches we've yet to hear about?

We won't have any of these answers in a reasonable period of time if we don't have adequate funding.

It's not just birth defects we are talking about here, either. Look at the damage in those images again; this virus not only damages fetal nerve and brain tissue, it kills fetuses. Infants born with Zika-related defects may be blind and may lead short, painful lives. And it may kill and maim adults, too, if they develop a serious case of Zika-related Guillain-Barre Syndrome.

Let's not bring out any more Zika dead.

(Note: Forgive me for the simplistic terms used in this post if you have a background in science. I had to make this as brief and succinct as possible for those who don't have that background.)

Source:

Zika virus impairs growth in human neurospheres and brain organoids

BY PATRICIA P. GARCEZ, ERICK CORREIA LOIOLA, RODRIGO MADEIRO DA COSTA, LUIZA M. HIGA, PABLO TRINDADE, RODRIGO DELVECCHIO, JULIANA MINARDI NASCIMENTO, RODRIGO BRINDEIRO, AMILCAR TANURI, STEVENS K. REHEN

SCIENCE13 MAY 2016 : 816-818

Zika virus infection in cell culture models damages human neural stem cells to limit growth and cause cell death.

URL:

<http://science.sciencemag.org/content/352/6287/816.full>

Zika Studies Using Mice:

F. Cugola et al., "The Brazilian Zika virus strain causes birth defects in experimental models," Nature, doi:10.1038/nature18296, 2016.

C. Li et al., "Zika virus disrupts neural progenitor development and leads to microcephaly in mice," Cell Stem Cell, doi:10.1016/j.stem.2016.04.017, 2016.

J. Miner et al., "Zika virus infection during pregnancy in mice causes placental damage and fetal demise," Cell, doi:10.1016/j.cell.2016.05.008, 2016.

THE OBAMACARE "WONKS" ARE AWFULLY SELECTIVE ABOUT WHICH TAXES AND COSTS THEY SEE

Let me start this critique (what may be the first of two parts) of Jonathan Cohn's scolding of Bernie Sanders on health insurance

by looking at this passage, from the end of his piece:

[Bernie] might not get his plan through Congress, sure, but he could use his promise to extract other useful legislation from Congress. Maybe he could win approval for the “public option” insurance plan that was originally part of Obamacare, or for allowing the non-elderly to buy into Medicare.

These are legitimate arguments. But liberal policy wonks remember the struggle to enact and then implement Obamacare. They also also remember that universal health care was a progressive dream for nearly a century, one that proved impossible for presidents with names like Roosevelt and Truman (and Clinton!) to realize.

One reason reform took so long is that, for most of that period, activists and the wonks were pulling in different directions, with the activists pursuing single-payer and the wonks looking for compromises. The (mostly) unified front they showed in 2009 and 2010 was a big reason Obamacare became law. Now that unity is fading, creating a key divide in the Democratic campaign.

In this passage, Cohn talks about the things that Bernie Sanders might do as President that fall short of his goal of “single payer” health care (I put that in quotes because what we’re really talking about is government paid health insurance – as providers pull out of exchanges in Obamacare we’re actually moving closer to a much more alarming sort of single payer model).

He suggests that President Bernie, brought to earth by a reality of which, his critics suggest, he is woefully unaware right now, might set up the government as a competitor to private

insurers within the Obamacare structure. Cohn then moves from that possibility (which I would suggest would be remote except for some realities about Obamacare as enacted) to saying “liberal policy wonks” know that Obamacare was a struggle and they know how hard it was to get even what we got (Bernie, who was in the Senate fighting to make Obamacare better at the time, apparently is too senile to remember all this, I guess).

As a reminder, one reason both the public option and Medicare buy-in were opposed by some Democratic Senators (and especially insurance state Independent Joe Lieberman, whom Bill Clinton had a big hand in getting reelected in 2006), meaning we couldn’t even pass it with a supermajority, is because they would make it too easy to move towards single payer. The idea was private companies could not compete, and so would slowly lose most exchange business to the government.

Now, if I were someone pushing for the improvement of healthcare delivery in this country, I’d say, “wow, if Bernie could pull off Medicare buy-in, that’d get us closer to single payer! That’d be a huge win!” I also might consider ways that true Medicare buy-in (rather than just gradually lowering the age at which you could buy in) might address some of the problems with cost sustainability with Medicare. I’d further applaud that getting more people into Medicare would expose more people to the innovations in delivery tied to it (one of the two best things about Obamacare), and therefore would move delivery as a whole down that path.

In short, I’d be applauding.

But Cohn doesn’t do that.

Instead, he decries what he calls a split between “wonks” and “activists.”

Can someone please define what those words mean for me? Can you explain how a man who has spent a decade writing about ways to improve health

insurance and even sometimes healthcare, as Cohn has, is not an activist of sorts? Has he just been writing for a paycheck all these years?

Don't get me wrong. I consider Cohn an expert in the subject, unlike some other people who get included in Paul Krugman's club of wonks. I respect much of what he writes. And I have no doubt that he has become an expert on this topic because he'd like to improve a shitty system.

But setting up a dichotomy between "wonks" ("yes, I am one of those wonks," Cohn says elsewhere) and "activists" is an insidious way of saying "some of the people who work on this issue are not as smart as me." Would anyone suggest such a thing about insurance company lobbyists, who are themselves "activists"? Nope. They're just experts who use different methods to press for their desired outcome. But somehow people who lobby and organize on the *other* side are presumed to be unicorn sniffing half-wits.

Calling oneself a wonk is also an easy way absolve oneself of examining what function wonk-scolding plays – a way to pretend one is delivering just unmediated rationality and not an argument designed to bring about some outcome. Here, the desired outcome seems to be the restoration of unity between those deemed "activists" and those deemed "wonks." But not just to restore unity, mind you, but to restore unity by getting "activists" to be satisfied with what "wonks" tell them is realistic.

In other words, it's a plea from one kind of activist for another kind of activist to fall back in line behind the policies the first kind of activist espouses, and, especially, to stop suggesting Obamacare (and, frankly, a whole bunch of other policies enacted by Obama and defended by Hillary Clinton, as well as some foreign policy ones that go beyond what Obama has done) isn't an adequate solution.

So let's go back to what else Cohn says. First, he explains why (unnamed) "liberals sympathetic" to government insurance consider it unrealistic

by warning that *even trying* to move towards government insurance will “produce a major public backlash.”

Even many liberals sympathetic to the idea have said that Sanders’ scheme is simply not realistic. They worry that trying to push through another comprehensive health care package so soon after the Affordable Care Act’s tumultuous enactment would produce a major public backlash.

Note what Cohn has done here (besides putting his own argument in the mouths of unnamed anonymous liberals). In the rest of his piece, Cohn suggests that achieving government insurance is unrealistic. Fair enough – in a four year term it may well be. But here, he somehow ties what might fairly be considered the impossibility of actually *achieving* it with the specter of “major public backlash” if someone even tries.

I’m not sure if Cohn has noticed, but there is an ongoing major public backlash already. It was so bad in 2010 that it made predictable off year congressional losses far worse than they might have been. Much of that backlash is just Republican posturing. But not all of it. Some of the backlash comes from legitimate complaints about Obamacare: the government botched the original sign up, people actually weren’t able to keep their insurance plans, their selection of doctors has gone down, people are being forced to buy shitty insurance they can’t afford that won’t even make care affordable. Some of the backlash is unjustified, but some of it actually is justified.

But Cohn says we can’t talk about moving to government insurance because if so it will ... cause what is already happening to continue happening? Or perhaps because it will legitimize some of the legitimate critiques of the Obamacare that activists like Cohn pushed back in 2009? Is that it? We can’t even *talk* about

government insurance because doing so would bring people like Cohn in for some criticism?

Finally, here's the line from the debate that Cohn frames this entire discussion around, where Hillary attacked Bernie's plan because it would impose a \$2,300 tax on the working poor.

But during the debate she also made another claim: That under the Sanders plan, some low-income people now on Medicaid would be much worse off. "A working woman on Medicaid who already has health insurance would be expected to pay about \$2,300," Clinton said.

[snip]

Here's why. If the federal government is going to provide everybody with health insurance, then it must raise enough money to pay for those benefits. To do this, Sanders has said, he'd create a new payroll tax, equal to 8.9 percent of wages. In theory, employees would pay only a portion of that, with employers covering the majority. In reality, economists say, the employer share also comes out of workers' paychecks, if not right away then over time.

[snip]

An 8.9 percent payroll tax would work out to a new payroll tax burden of \$2,314 – just as Clinton said.

Today, by contrast, you'd be getting Medicaid without having to pay any new taxes. The money for the program comes out of general revenue and if you're one of the newly eligible folks, then the money is coming almost entirely from taxes that fall on the wealthy and on corporations in the health care industry.

Now, "wonks" love to criticize Bernie for promising things he can't deliver. But note what

Cohn has done in this last paragraph: under Obamacare this working poor mother of two gets health insurance “without having to pay any new taxes.” Her health insurance “comes out of general revenue” which comes from “taxes that fall on the wealthy and on corporations in the health care industry.”

I think Cohn *means* to suggest that the revenue passed under Obamacare fall on the wealthy and corporations. He surely doesn’t mean that general revenue funds generally come from taxes that fall on the wealthy and corporations, because many rich people and corporations actually don’t pay income taxes. Indeed, it’s all that we can manage to keep corporations – some of them the health care ones Cohn says pay for all this – paying any taxes at all. What he really means is the taxes that pay for Medicaid come largely from the affluent and middle class taxes and even borrowing. That single mom likely still isn’t paying for her own Medicaid, but it’s not actually rich corporations that are doing so.

But even if Cohn meant only to refer to the planned funding method for Obamacare, his claim is problematic. That’s because one of the taxes targeting the industry, on medical devices, has already been suspended. Another tax that Obamacare boosters liked to pretend will only affect the wealthy, the Cadillac tax, will actually affect more people than that, including unions (which is why Hillary has promised to scrap it, as has Bernie). Plus, the Cadillac tax boosters sold it with a claim that workers wages would go up after their companies cut their health insurance. Those claims always seemed like fantasy – at least to me and actual experts like Larry Mishel, the latter of whom was pretty much ignored by the “wonks” during the debate. In the last six years that has become even more clear.

This is important: In a key fight about funding during Obamacare, the “wonks” promised workers (especially union workers) a wage increase, but

evidence now strongly suggests it would lead instead to a wage cut. Yet those same “wonks” (though Cohn wasn’t one of the more obnoxious Cadillac tax defenders) are now scolding Bernie about the realism of his claims. Why should we listen to the “wonks” when they too promised illusory unicorns?

Finally, though, I want to look at the premise of Hillary’s attack, that Bernie’s plan would be bad because it would impose an 8.9% tax on a working poor woman. Cohn admits that’s surely something Bernie would fix before implementation, but he apparently finds the criticism legitimate because “doing so would require new trade-offs.” Trade-offs like those that continue to need to be made on Obamacare to make up for the medical device and Cadillac tax, I’d respond.

But here’s the other thing about that 8.9% tax. I absolutely agree that an 8.9% tax on the working poor in exchange for health insurance would be steep. But let’s consider what Obamacare is for a segment of the middle class that are forced to buy insurance – spending up to 13% of their income – that they can’t use. Sure, it will minimize but by no means eliminate the problem of medically related financial crisis in the case of a catastrophe. But the rest of the time, it functions as a tax, a payment necessitated under this scheme to make care accessible for others. One that – unlike that poor woman who’d pay \$2,300 if Bernie’s implementation of single payer somehow didn’t fix things along the way – wouldn’t necessarily provide care in response. (Note, in reality, 22% of Medicaid recipients also can’t afford to use their insurance, though unlike the general number of underinsured, that’s a number that Obamacare has improved.)

Now, we knew this was going to be a problem, though the “wonks” generally didn’t like to talk about it during the debate (though Cohn is actually one who did admit it at least once in response to me raising it), because somewhere

between 16 and 21% of people in Massachusetts couldn't afford to use their RomneyCare. Hillary has suggested she'd throw more money at the problem (and, ultimately, insurers) to address the problem, but she hasn't actually explained what trade-offs she'd make to achieve that. Again, it seems okay for Hillary to remain silent about the trade-offs she'd have to make whereas when Bernie does he's a fantasist.

Partly, though, Obamacare is *designed* to underinsure people, because there's a belief that unless people feel the sting of obtaining care, they'll get too much of it. "Bending the cost curve" under Obamacare is largely driven by increasing the costs of actually using insurance to the end user as opposed to, say, eliminating the many layers of private profit that doesn't actually improve health care but makes it expensive.

In truth, the people the "wonks" deem "activists" aren't actually stupid, or naive, or unicorn herders. Some of them are actually experts of longer standing than those writing in favor of Obamacare. Rather, they disagree about what acceptable costs are, as well as about whether it makes sense to continue pointing out that the US has an unbelievably ineffective healthcare delivery system with terrible outcomes that not only is immoral, but saddles our economy with a burden that other developed countries don't have, making us less competitive in any industry not driven by this exorbitant spending. Yes, there is also a difference of opinion about whether it is more effective "activism" to set the goal where everyone agrees it should be – providing actual health care – or to instead set more moderate goals that also have the effect of naturalizing a particular ideology. But ultimately there is a real debate about policy here, and rather than use "activists" to continue to set the bar on the most efficient way to provide the best health care, a lot of those close to Hillary would prefer they just shut up.

Update: First, Cohn has corrected his piece to note that the single mom he discusses would actually pay \$1,600, and that it would actually come from her employer.

Dean Baker (another expert often ignored during these debates) not only reminds that if Bernie were able to pass both his single payer and his \$15 minimum wage proposals, the single mom would be better off overall (and he used Cohn's uncorrected number). He also provides the equivalent example to the one Cohn offers, to note (as I did) that Obamacare requires some people to pay for insurance they won't use.

Let's take the case of a young African American woman just out of college, with \$30,000 in debt. Let's suppose this woman has an income of \$35,000 a year. Let's say she is in excellent health and from a family of people enjoying excellent health. In the pre-Obamacare days she might have opted to either buy one of the low-cost catastrophic plans that is no longer available under the ACA, or go without insurance altogether.

Under the ACA, this young woman will be expected to pay roughly 8 percent of her income, or \$2,800 a year, for health insurance that she does not want. Should we feel bad about this young woman struggling to meet a large debt burden, while working at a low-paying job and now being forced to buy insurance?

Well, that is a bad story and there are many like them. But many of the same policy wonks who have endlessly highlighted the plight of the Medicaid mother under the Sanders plan (I have seen it featured as a news article in the Washington Post and also as a topic of numerous columns and editorials), have been content to largely ignore the plight of young people struggling to pay their ACA premiums. At least they don't see it as a basis for rejecting the

CDC: ZIKA VIRUS CONFIRMED AS A CAUSE OF MICROCEPHALY

CDC director Dr. Tom Frieden confirmed Wednesday that the flavivirus known as Zika is a cause of microcephaly and other severe fetal brain defects.

The confirmation is based on an evaluation of available data for potential teratogenic effects. Using both Shepard criteria and Bradford Hill criteria, researchers proved prenatal Zika virus infection has a causal relationship with microcephaly and other serious brain anomalies.

The first set of seven criteria used in the assessment were developed by Dr. Thomas Shepard to assess an agent's teratogenicity – the ability to cause birth defects. The criteria of proof are:

1. Proven exposure to agent at critical time(s) in prenatal development
2. Consistent findings by two or more epidemiologic studies of high quality
 - a. control of confounding factors
 - b. sufficient numbers
 - c. exclusion of positive and negative bias factors
 - d. prospective studies, if possible, and
 - e. relative risk of six or more

3. Careful delineation of the clinical cases. A specific defect or syndrome, if present, is very helpful.

4. Rare environmental exposure associated with rare defect. Probably three or more cases.

5. Teratogenicity in experimental animals important but not essential.

6. The association should make biological sense.

7. Proof in an experimental system that the agent acts in an unaltered state. Important for prevention.

Note:

Items 1~3 or 1, 3, and 4 are essential criteria.

Items 5~7 are helpful but not essential.

Shepard criteria summary:

1. The microcephaly and other brain defects observed in infants and fetuses were consistent with maternal Zika infection during first and second trimester of pregnancy. Mothers exhibited symptoms, and/or had infections confirmed by labs, and/or had traveled to areas where Zika was endemic. **This criterion was met.**

2. Data documenting the location of Zika virus infections and the subsequent incidence of microcephaly in those areas was supported by two epidemiologic studies. But as sample sizes were too small and controls were lacking, this criterion has not yet been met.

3. Cases manifesting with a very specific defect (an atypical microcephaly) or syndrome (a narrow range of neurological defects in tandem with microcephaly) **satisfied this third criterion.** With Zika infection, microcephalic cases displayed adequate bone tissue and scalp skin production, but 'collapsed' due to the disrupted

development of fetal brain tissue. This is not common in other microcephalies.

4. An adequate number of cases **fulfilled the criteria** of rare exposure and rare defect – one example cited was that of a pregnant woman who traveled for a week to areas where Zika was not endemic. She tested positive for Zika during her second trimester, and the fetus displayed brain defects associated with Zika after the infection.

5. Studies for this criteria – teratogenicity in animal models – are still under way. This criterion is not yet satisfied.

6. **This criterion is met** as the causal relationship makes biologic sense.

7. This criterion does not apply to infectious agents.

The essential Shepard criteria have been met for proof of teratogenicity.

Bradford Hill criteria summary

Of the nine criterion – the strength of association, consistency, specificity, temporality, biologic gradient, plausibility, coherence, experiment (on animal models), and analogy – only two criterion are not applicable or not available. The remaining seven criterion were met in much the same manner as the Shepard criteria 1, 3, 4 were met.

What's next

A spectrum of additional fetal abnormalities has not yet been fully identified in association with Zika infection. This will become clear once some pregnancies being monitored reach term.

We don't yet know if Zika virus affects adult neurological tissues; some cases of Guillain-Barre Syndrome (GBS) have been reported in areas where Zika is endemic. GBS has occurred in patients after viral infections where neurological tissues have been affected; it would make biologic sense for there to be a

causal relationship between Zika and GBS. However, GBS has occurred in patients long after an initial infection, making it difficult to see obvious relationships without further screening and testing.

A Zika vaccine may be some time off; of the flavivirus family, only yellow fever and a couple of encephalitis viruses have vaccines while others like West Nile and dengue do not.

Mosquito control varies widely from state to state, let alone by county or municipality. We do not know if it is adequate to ensure Zika's spread via *Aedes aegypti* and *Aedes albopictus* mosquito species is limited. U.S. experience with the spread of West Nile Virus may be informative.

Funding for additional research, education, training, vaccine development and mosquito control, as well as funding increases for birth control are much needed, But the GOP-led Congress will likely avoid this issue during the remaining days it is in session this election year.

In the meantime, if you're around mosquitoes in warmer areas of the U.S., are pregnant, plan to be pregnant, or might get someone pregnant, check the CDC's guidelines on Zika.

THURSDAY MORNING: TABOO YOU

Still on spring break around here. If I was legit on a road trip some place warm right now, you'd find me lounging in the sun, sipping fruity cocktails at all hours, listening to some cheesy exotica like this Arthur Lyman piece I've shared here.

Though horribly appropriative and colonialist,

it's hard not to like exotica for its in-your-face corniness. I think my favorite remains Martin Denny's Quiet Village. It brings back memories from the early 1960s, when life was pretty simple.

Let's have a mai tai for breakfast and get on with our day.

Urgent: Increasing number of hospitals held ransom

Last month it was just one hospital – Hollywood Presbyterian Medical Center paid out bitcoin ransom.

Last week it was three – two Prime Healthcare Management hospitals in California and a Methodist Hospital in Kentucky held hostage.

Now, an entire chain of hospitals has been attacked by ransomware, this time affecting the servers of 10 related facilities in Maryland and Washington DC. The FBI is involved in the case. Is this simple extortion or terrorism? The patients diverted from the facilities to other hospitals' emergency rooms probably don't care which it is – this latest attack interfered with getting care as quickly as possible. Let's hope none of the diverted patients, or those already admitted into the MedStar Union Memorial Hospital chain, have been directly injured by ransomware's impact on the system.

The MedStar cases spawns many questions:

- Was any patient's physical health care negatively affected by the ransomware attack?
- Given the risks to human health, why aren't hospitals better prepared against ransomware?
- Have hospitals across the country treated ransomware as a potential HIPAA

violation?

- Was MedStar targeted because of its proximity to Washington DC?
- Was Hollywood Presbyterian Medical Center targeted because its owner, CHA Medical Center, is South Korean?
- Were any patients being treated at MedStar also affected by the OPM data breach, or other health insurance data breaches?
- How much will ransomware affect U.S. healthcare costs this year and next?

Bet you can think of a couple more questions, too, maybe more than a couple after reading this:

Hospitals are considered critical infrastructure, but unless patient data is impacted there is no requirement to disclose such hackings even if operations are disrupted.

Computer security of the hospital industry is generally regarded as poor, and the federal Health and Human Services Department regularly publishes a list of health care providers that have been hacked with patient information stolen. The agency said Monday it was aware of the MedStar incident.

Apple iPhone cases emerge

After the San Bernardino #AppleVsFBI case, more law enforcement investigations relying on iPhones are surfacing in the media.

- L.A. police crack open iPhone with fingerprints obtained under warrant (Forbes);
- FBI will assist county prosecutor in Arkansas with iPhone belonging to alleged teen killer (Los Angeles Times); the method may be the same hack used on the San Bernardino phone, which was supposed to be a one-off (Network World);
- ACLU found 63 other cases in which FBI used All Writs Act to obtain iPhone/Android smartphone data from Apple and Google (The Register).

Stupid stuff

- In spite of screwing up not once but twice by releasing its racist, obnoxious Tay AI chatbot, Microsoft tripled down on a future full of chatbots you can build yourself with their tools. (Ars Technica) – Ugh. The stupid...
- UK's Ministry of Defense awarded funding to Massive Analytics for work on "Artificial precognition and decision-making support for persistent surveillance-based tactical support" (Gov.UK) – OMG Precog in

warfare. Human-free drone attacks. What could go wrong?

- Rich white guys queue up outside Tesla dealerships for days waiting to pre-order the new Tesla 3 (Vancity Buzz) – Vancouver, Sydney, probably other places I'm too arsed to bother with, because rich white guys.

That's quite enough. Back to pretending I'm lying under a cerulean sky, baking my tuchis, cold drink in hand.

PFIZER'S VISION OF R&D

Recently I saw Ian Read, the CEO of Pfizer, on CNBC explaining that the Pfizer/Allergan merger would enable the combined companies to spend more on research and development of new drugs. He also confirmed that Pfizer raised prices on at least 105 drugs for no apparent reason. You can watch a small part of the interview [here](#).

Read tries to pass the price hikes off as some kind of market-driven thing, which is stupid because price hikes are mostly either for drugs protected by patents or for generics which have no competition. The increases averaged 9.4%, far in excess of inflation, and faster than the expected increase of 5.4% in total health care spending. It's a money grab pure and simple. The CEO then explained that these prices are a drop in the bucket, since drugs account for only about 10% of total health care spending, which comes to a total of about \$310 billion, or roughly \$1000 per person in the US. Drug prices

rose by an average of 10.4% in 2014, so a drop in the bucket is roughly \$100 per US person. And anyway, Read says, they do negotiate prices with some providers and cut prices for some poor people; meaning that the rest is paid by drug insurance policy holders. All this public talk is just politics, says Read, who in 2014 received total compensation of \$23.3 million. Surely for that kind of money he could do a better job of defending his company's rapacious behavior.

Pfizer is planning to merge with Allergan and move to Ireland to cut taxes. Read claims he needs the money for research and development of wonderful new drugs. That suggests that Read thinks he doesn't have enough money for R&D right now. Let's see what the 2014 financial statements say about that. In 2014, Pfizer reported net income of \$9.1 billion. P. 58. It paid dividends of \$6.6 billion, and repurchased stock for \$5.0 billion, a total return to shareholders of \$11.1 billion. With that kind of management, no wonder there is no money for an increase in R&D.

Remember that R&D expenses are deductible in full in the year incurred, a temporary tax law now permanent thanks to Congress. So let's see what we get for that tax cut. Pfizer reports that in 2012, it had an R&D expense of \$250 million to "obtain the exclusive, global, OTC rights to Nexium". P. 28. Pfizer get Uncle Sam to pay about \$80 million of that price. In 2014, Pfizer counted as part of its increase in R&D this gem: "\$309 million, reflecting the estimated fair value of certain co-promotion rights for Xalkori given to Merck KGaA". That's a non-cash transaction that cut Pfizer's taxes.

And here's a description of the R&D program at Pfizer:

We take a holistic approach to our R&D operations and manage the operations on a total-company basis through our matrix organizations described above. Specifically, a single committee, co-

chaired by members of our R&D and commercial organizations, is accountable for aligning resources among all of our R&D projects and for seeking to ensure that our company is focusing its R&D resources in the areas where we believe that we can be most successful and maximize our return on investment. We believe that this approach also serves to maximize accountability and flexibility.

That's management speak for "we make drugs that will maximize our income."

Turning to the Allergan deal, CEO Read assures us that Pfizer will use the tax savings for R&D. Let's first see what the savings might be. According to Americans for Tax Freedom, Pfizer paid effective world-wide tax rate of 7.5%. That compares with the 25.5% reported on its 10-K. P. 28. ATF offers a detailed explanation of the accounting, and explains that most US multinationals don't use the same accounting treatment. ATF adds that Pfizer had as much as \$148 billion parked overseas and untaxed in the US. At least that explains where they get the money to pay off their shareholders and keep Wall Street happy.

Let's just ignore the claim of Frank D'Amelio, Pfizer's CFO, that half the tax savings will go to shareholders as dividends. Pfizer has shut down a bunch of R&D facilities after each of its recent mergers.

Writing in Nature, former Pfizer R&D executive John LaMattina noted that the company's three largest buyouts—Warner-Lambert, Pharmacia and Wyeth—resulted in sweeping research cuts and site closures, leaving more than 20,000 scientists out of work. And those who stick around were saddled with major R&D delays, LaMattina wrote, as integrating two large companies involves a painstaking review of assets that can

slow development down to a crawl. Even more difficult to quantify is the effect on productivity, he wrote, as word of potential layoffs spreads fast throughout a large company and distracts workers from their projects.

After the merger the number two man, Brent Saunders of Allergan will oversee operations, including R&D. Here's Saunders in August, 2015, discussing his vision of R&D with Randall Pierson of Reuters.

Saunders said discovery research, where researchers test ideas and compounds in test tubes and animals, typically eats up about 30 percent of pharmaceutical company research budgets, although only about one of every 20 such products that enters human trials succeeds and is approved.

"Discovery is where the industry has its lowest return on investment," he said, "and not a good (use) of Allergan's research dollars."

Instead, he said Allergan will acquire products from companies that have already done the research spadework, and then itself develop the medicines and submit them for regulatory approvals.

In other words, Saunders and Read like the business of buying other people's research and then doing some tests and filling out the paperwork for drug approvals. This gets them a patent/monopoly, and a fat tax deduction for all the paperwork. Then they can sell the drugs for a profit that is taxed (if at all) at capital gain rates, and if a US company buys it, the US company gets to treat the price it paid as a fully deductible R&D expense. Sweet.

Remember that Read is magnificently compensated for running this business, but what does he bring to the table? It has nothing to do with

drug creation and manufacture. His contribution is measured by how little Pfizer pays in taxes, and how well he engineers earnings, and certainly not by any contribution to the well-being of humans.

We don't have to allow this business model to flourish with tax cuts and benefits. It's corrupt to the bone.

WEDNESDAY MORNING: ADULTING IS HARD

While looking for Wednesday, I discovered there's a video short series based on a grownup version of Wednesday Addams character. Cute, though from Wednesday's POV becoming an adult isn't all the fun one might expect.

So much for those carefree days when one could leave all the bad news and difficult choices to parental figures. It was all an illusion there were ever any grownups in charge.

Playstation moves to U.S. as Sony melds and migrates interactive entertainment divisions

What's this really all about? Does this consolidation of Sony Computer Entertainment with Sony Network Entertainment and their move to California as Sony Interactive Entertainment allow better collaboration with Sony Pictures? Or does this allow for easy access by U.S. government entities suspicious of Playstation Network as a potential terrorist communications platform? Or is this a means to secure a leaky business by pulling more of Sony Group inside a single network? Sony explained SIE will "retain and expand PlayStation user engagement, increase Average Revenue Per Paying Users and drive ancillary revenue" – but that sounds like fuzzy vapor to me.

"Bent spear? Oh, THAT bent spear..." Air Force

review omits report of damage to nuke

I hope like hell President Obama has already called someone on the carpet and asked for heads to roll. Not reporting a “bent spear” event in a review of U.S. nuclear force isn’t exactly a little boo-boo. A “bent spear” in 2007 spawned a rigorous investigation resulting in a large number of disciplinary actions including resignations and removals from duty.

Zika virus: risk to U.S. mounting

There have been more non-locally transmitted cases of Zika virus here in the U.S. as another Latin American country warns women against pregnancy. *Not to worry, it’s not like Ebola, relax*, we’ve been told...except that we’ve seen this playbook before, where there were casualties as a pandemic began before either federal or state agencies took effective action. In the case of Zika, we may not see mortalities; casualties may be serious birth defects following a rapid spread with mosquito season. Fortunately President Obama has now asked for more accelerated research into Zika, though we may not see results before Aedes mosquito season hits its stride this year. For more information about this virus, see the CDC’s Zika website.

EU seeks hefty fines in draft law to overhaul auto industry regulations

At fines of €30,000 (£22,600) per vehicle found in violation, the EU might get some results out of proposed regulations governing automotive emissions standards. But the problem hasn’t been the lack of EU standards – it’s the inability to validate and extract compliance when so many member states are willing to turn a blind eye to their constituent manufacturers’ failings in order to preserve employment. Can the EU make these fines stick once new regulations are passed?

By the way, Consumer Reports published a really snappy overview of the VW emissions scandal. Worth a read.

Con Edison’s creaky website leaves online customers exposed

You'd think by now after all of the successful hacks on business and government websites that companies would catch a clue. But no, not in the case of Con Edison. Read the article [here](#) so you know what to watch for at other websites; all of ConEd's site's links do not open fully encrypted connections. This is a really easy thing to fix, should be the very first thing every single business allowing customers to log in or pay online should check.

Heading out to act like an adult for the next eight hours. Maybe less.

HARVEY HOLLINS IS SUPPOSED TO BE LEADING FLINT RESPONSE BUT SNYDER SENT RICHARD BAIRD INSTEAD

In my posts on Flint, I've alluded to a guy named Rich Baird, whom Governor Rick Snyder calls his "Transformation Manager."

This morning, the Detroit News reported Snyder is sending Baird to oversee his Flint response.

The governor is dispatching his fixer and confidant, Rich Baird, to Flint to help coordinate the state response and to reassure the city's elected leaders of direct, daily contact with the governor's office.

Eclectablog has written several important posts on who Baird is and, importantly, how he was originally funded.

Baird, who had recently retired from PricewaterhouseCoopers, set up a consulting firm called MI Partners and took on one client: Governor Rick Snyder. He makes \$100,000 year, paid for by unknown donors to the NERD fund, and sits at the right hand of the governor. His office is literally in the governor's executive office suite. If you look at the Executive Office directory (pdf), there is Richard Baird's name, listed along with the normal staffers paid like most other government officials with taxpayer money:

The important point though is that Baird, who has been a critical figure in Snyder's emergency management schemes, started as a public/private fixer, working for private entities we can't know about. In advance of the reelection campaign, at a time when people were demanding to know *who* had been paying Baird's salary, Baird was brought onto state payroll. But he is a key figure in Snyder's corporate driven effort to loot Michigan.

There are two reasons I'm interested in the report that Baird is overseeing Snyder's response.

First, back in early December, Snyder's hand-picked Task Force for responding to the Flint crisis met with him to tell him of their initial observations. One of their key recommendations, as made clear by a meeting summary they shared with him, was that he appoint one single person to handle the response. (See PDF 240ff)

We also believe it important that a single person or entity-potentially independent of any one particular state agency and mutually agreeable to this Task Force and you, Governor-be established to provide effective coordination of ongoing activities and reporting on the status of mitigation

measures.

[snip]

Accordingly, in advance of our final report, we would like to ensure the independent coordinator suggested above engage trusted community groups to begin rebuilding community trust in state actions.

Snyder responded by “appointing” Harvey Hollins, his Director of Urban Initiatives, as that person “independent” of the “involved state agencies.”

You make a solid suggestion about establishing a person who is independent of any one of the involved state agencies to serve as the point person to coordinate the ongoing work. I am recommending that Harvey Hollins, director of the Office of Urban Initiatives, carry out this effort. Harvey is well-versed in the issues and the challenges faced by our cities and will be effective in this role. Senior members of our executive team will continue to engage with your task force and provide direction and support to Harvey to ensure you will have continued support and cooperation.

The thing is, Hollins was in no way “independent” of the decisions that poisoned Flint. He has been involved at every phase, down to coordinating Snyder’s hush-hush water filters when he was still trying to cover it up. So basically Snyder just “appointed” the guy he had “appointed” to oversee all the decisions that got Flint poisoned in the first place.

But now he’s putting (or the press is reporting that he already did put) someone else – Baird – in charge of his response.

Which brings us to what Snyder’s emails show

about the involvement of Baird.

Now, I hope to get around to posting evidence from his released emails that Snyder has a second email account, and that much of what we see in the released emails are efforts to keep certain things off the books (not just in that second account but in phone or face-to-face conversations). So – as MotorCity Muckraker pointed out – it's perhaps not surprising that Baird doesn't appear to send Snyder many emails (on this account) but it is notable.

When he does appear in emails is interesting, however.

Baird appears in emails forwarded with public announcements relating to Flint in 2014.

- PDF 5: January 15, 2014:
Public announcement of
federal funding
- PDF 26: April 30, 2014:
Flint EM's budget talking
points

Then Baird didn't show up in emails again until the shit started hitting the fan in October 2015. It's quite clear from these emails that Baird had a key role in responding to this crisis, including as the go-between with the Task Force Snyder set up to make the whole problem go away.

- PDF 110: October 06, 2014:
Public distribution of water
filters
- PDF 217: November 17, 2015:
DEQ's (significantly
misleading) self-report to
Snyder's Task Force
- PDF 240: December 7, 2015:
Task Force (Ken Sikkema)'s
formal conveyance of its

report to Snyder

- PDF 243: December 10, 2015:
Response to Task Force,
reflecting input from Baird
- PDF 246: December 11, 2015:
DHHS testing data
- PDF 250: December 24, 2015:
Office of Auditor General
response to State Senator
Jim Ananich
- PDF 252: December 28, 2015:
DEQ concurring in OAG's
analysis
- PDF 269: December 28, 2015:
Response to pre-shared copy
of Task Force report,
reflecting conference call
involving Baird, noting a
phone call to follow
- PDF: December 29, 2015:
Snyder's statement about
Task Force response, with
note that Baird would meet
face-to-face with Task Force
on follow-up

By late December, it's clear the governor's staff was avoiding putting certain things in writing. In some key moments, in fact, Baird was involved in conversations about the response.

None of this is surprising. But it does make it clear that Snyder's real response here is being led by his public-private fixer.

BILL SCHUETTE'S BOGUS EXCUSE FOR HIS BELATED INVESTIGATION INTO FLINT

This morning, Michigan's Attorney General and aspiring gubernatorial candidate Bill Schuette appointed a lawyer who has donated \$10,200 to his own state-wide elections and chunks more to other Republicans (as well as a smaller donation to Jennifer Granholm in 2005) to lead the "state" investigation into Flint (this is, of course, an investigation carried out by two private citizens granted the authority of the state, not the state itself – yet more private contractors who will make money off the screw-ups of Snyder's emergency managers).

Just as interesting as the financial ties Todd Flood has with the Republican party is the excuse Schuette gave for all of a sudden deciding he needed to conduct an investigation just after the story leaked on January 5 that Detroit's US Attorney, Barb McQuade, is investigating. Schuette said he decided to act in the wake of some resignations from staffers from the Department of Environmental Quality.

Initially Schuette had declined to investigate the Flint water crisis, but said that in early January new information including the resignation of Michigan Department of Environmental Quality officials had changed his mind.

This claim suggests some pretty whacky timing. The DEQ employees who had resigned by the time Schuette announced his investigation on January 15 were DEQ Director Dan Wyant and Spokesperson Brad Wurfel (Snyder subsequently announced the suspension of two unnamed DEQ employees on January 22).

But Schuette sure as hell didn't sound like he thought Wyant's resignation merited an investigation on December 29, when he released this statement.

I am saddened to hear of the resignation of Department of Environment Quality Director Dan Wyant. In my 20-plus years of knowing him, Dan has been a hardworking, dedicated public servant. I am committed to working with all parties, including the legislature and Governor, to ensure the public's health and the well being of Michigan residents.

On the contrary, Schuette sounded like it was a terrible thing that those mean poisoned Flint kids brought about a career setback for his buddy.

Moreover, the emails Snyder released make it clear that the "resignations" and "suspensions" of these DEQ fall guys was very closely orchestrated.

The day before the governor's Task Force on Water (directed by a GOP partisan but including the leader of an environmental group and some health academics) formally delivered an interim report to Snyder, December 28, someone sent an advance copy to the governor. (See PDF 269 for the advance copy and discussion that followed, and PDF 265 for the formal conveyance of the report to the governor.) Snyder's Chief of Staff, Jarrod Agen, his legal counsel, James Redford, his Director of Urban Initiatives, Harvey Hollins (who was involved in the Flint issues throughout, and whom Snyder laughably appointed as the "independent" person to oversee the Flint response in December), his privately-paid bully "Transformation Manager" Richard Baird, and his Communications Director Meegan Holland had a conference call to figure out how to respond. Agen's email to Snyder makes it clear that before that call, there had already been a plan to make "structural changes"

at DEQ.

Attached is a letter from the Flint Water Task Force which will be formally sent to you tomorrow. The Task Force then plans to release this letter publicly on Wednesday morning.

You will see the letter is harsh against DEQ.

Rich, Redford, Harvey, Meegan, and myself all just gathered on a conference call to discuss our upcoming actions regarding Flint. While we don't think this letter should change any of our actions, we agreed we may need to accelerate some of the structural changes at DEQ.

Our suggestions:

- 1) Make structural changes at DEQ as early as tomorrow: The recommendations in this letter suggest profound change at DEQ and openly criticize Director Wyant. If this is the path that the Task Force is on, it is best to make changes at DEQ sooner rather than later. That likely means accepting Dan's resignation. It also means moving up the termination of the 3 DEQ personnel previously planned for Jan 4 to tomorrow.

His notes also make it clear that there was already a plan to terminate 3 other DEQ personnel on January 4 (which presumably would be Wurfel and the two staffers who got suspended on January 22).

There's no indication that Schuette was involved in these discussions (though given that he was already defending Snyder in multiple lawsuits, you would think he was in communication with Redford).

Still, it's quite clear that the "resignation" of DEQ staffers was planned well in advance.

So why wasn't Schuette's investigation planned before it became clear that the US Attorney is also investigating?

At a time when MI is facing a \$1.9 million bill for Schuette's personal tirade against equality and can't pay to fix its roads, Schuette has launched this private investigation that will need a separate appropriation to compete with the pre-existing federal one.

He did not put a timeline or cost estimate on the investigations, though he said he was in discussions with legislative leaders regarding a possible need for additional appropriation to fund the operation.

Schuette's belated interest in seeing if any laws have been broken sure does stink.

WEDNESDAY MORNING: OTHERWISE KNOWN AS MIKE-MIKE-MIKE DAY

My condolences to the poor Mikes among us who have suffered every Hump Day since Geico's TV commercial became so popular.

North Korean nuclear test detected by 'earthquake'

About 10:00 a.m. North Korean local time Wednesday, an event measured at 5.1 on Richter scale occurred near the site of recent underground nuclear testing. South Korea described the "earthquake" as "man-made" shortly after. Interestingly, China called it a "suspected explosion" – blunt language for China so early after the event.

NK's Kim Jong Un later confirmed a

“miniaturized hydrogen nuclear device” had been successfully tested. Governments and NGOs are now studying the event to validate this announcement. The explosion’s size calls the type of bomb into question – was this a hydrogen or an atomic weapon?

I’m amused at the way the news dispersed. While validating the story, I searched for “North Korea earthquake”; the earliest site in the search was BNO News (a.k.a. @BreakingNews) approximately 45 minutes after the event, followed 17 minutes later by Thompson Reuters Foundation. Not Reuters News, but the Foundation, and only the briefest regurgitation of an early South Korean statement. Interesting.

Spies’ ugly deaths

Examining the deaths of spies from 250 AD to present, Lapham’s Quarterly shows us how very cruel humans remain toward each other over the last millennia. Clearly, vicious deaths have not foiled the use of spies.

Zika virus outbreak moves Brazil to caution women against pregnancy now

An outbreak of the mosquito-borne Zika virus in Brazil may be linked to a sizeable uptick in microcephalic births – 2782 this past year, compared to 150 the previous year. The Brazilian government is now cautioning women to defer pregnancy until the end of the rainy season when the virus’ spread has been slowed.

Compared to number of Ebola virus cases in 2014-2015, Zika poses a much greater risk in terms of spread and future affected population. The virus has not received much attention, in spite of more than a million cases in Brazil, as symptoms among children and adults are relatively mild.

BCP now available in Oregon over the counter

Thanks to recent state legislation, women in Oregon now have greater access to birth control pills over the counter. California will soon implement the same legislation.

That’s one way of reducing the future number of

white male libertarian terrorists demanding unfettered use of public space and offerings of snacks.

Microsoft's tracking users' minutes in Windows 10

No longer content with tracking the number of devices using Windows operating system, Microsoft now measures how long each user spends in Windows 10. Why such granular measures? The company won't say.

Worth remembering two things: 1) Users don't *own* operating system software – they're licensees; 2) Software and system holes open to licensors may be holes open to others.

New cross-platform ransomware relies on JavaScript*

Won't matter whether users run Windows, Linux, Apple's Mac OS: if a device runs JavaScript, it's at risk for a new ransomware infection. Do read the article; this malware is particularly insidious because it hides in legitimate code, making it difficult to detect for elimination. And do make sure you keep backup copies of critical files off your devices in case you're hit by this ransomware.

Buckle up tight in your bobsled. It's all downhill after lunch, kids.

[* *this word edited to JavaScript from Java./Rayne*]

A BIG DAY AT SCOTUS ON OBAMACARE AND FAIR HOUSING



A little more than two hours ago, a fairly monumental day at the Supreme Court got

underway. Two big boxes of opinion were brought out signaling at least two, and perhaps as many as four, new decisions were going to be announced. It was only two, but they are huge and critically important decisions *King v. Burwell*, better known as the “Obamacare case”, and *Texas Dept of Housing v. Inclusive Communities Project*, better known as the Fair Housing case.

Both *King* and *Texas Housing* are big, and both have been the cause of serious apoplexy and fear among liberals and progressives. And both were decided very much in the favor of the liberal position, so it was a very good day on both issues.

First off is *King v. Burwell*, and the full opinion is here. It is a 6-3 opinion written by Chief Justice Roberts. Many people seem shocked that the majority was 6-3. I am not. While I thought the challenger King plaintiffs had a cognizable legal argument, it always struck me as a losing one, and one the Chief Justice was unlikely to sign off on after his sleight of hand to keep the ACA alive in the earlier *NFIB* case.

Similarly, though Anthony Kennedy was a bigger concern because of his states rights history, he has a long history on protecting citizens on social justice issues (which is why we are about to get marriage equality, maybe as soon as tomorrow). And, once Obamacare was upheld in *NFIB*, and all the millions of additional Americans had been given health insurance access (which, let us keep in mind, is still different

than actual healthcare), it really became a social justice issue, and thus one Kennedy would be very troubled to strip away.

As to the general overview, Rick Hasen at Election Law Blog has a great summary:

Before the case, so much ink was spilled (and more virtual ink virtually spilled) on the question of deference to the IRS's interpretation of ambiguity under the statute (under the so-called "Chevron" doctrine) as well as principles of federalism, which were used to argue for results for and against the Administration in the case. There were also questions about the standing of various plaintiffs. There were arguments about the intent of the drafters, and what MIT economist Gruber said, or may have said, or may have misspoken about the way the law was supposed to work. In the end, the Court rejected application of Chevron deference to the IRS and federalism made no appearance. Nor did standing or Gruber get discussed. Instead the Court's analysis went basically like this:

The question whether tax subsidies applied to poor people in states that did not set up their own health care exchange is important, so important that it is hard to believe that Congress would have delegated that question to an agency (and particularly to the IRS, whose job it is to collect revenue not design health care policy). So there is no "Chevron" deference on the question. The court has to use its tools of statutory interpretation to decide the case. The law, read as a whole, is ambiguous. It is certainly possible to read the challenged language as giving subsidies only to people in state exchanges and not in the federal

exchange. But there are other parts of the law, read in context, that only make sense if subsidies apply to those in state or federal exchanges. In such an ambiguous case, it is the purpose of the law that should govern. "Congress passed the Affordable Care Act to improve health insurance markets, not to destroy them. If at all possible, we must interpret the Act in a way that is consistent with the former, and avoids the latter."

Go read all of Rick's post, it is also notable for its explanation as to why *King* is likely the last word on the ACA as a viable entity and Obamacare is here to stay. I concur.

I would like to point out one aspect of the *King* decision I find particularly rewarding – the lack of attention to all the extrinsic noise that has been generated over the many months the *King* case was pending by all the crazed pundits on both sides of the issue at heart. Absent was all the relentless sturm and drang about standing, loss of standing, federalism, what Hans, err Jon, Gruber said or didn't say, post hoc interviews with Congress members, their staff and lobbyists and what it meant, and all other sundry sorts of faux legislative history by people that apparently would not recognize real "legislative history" if it hit them in the butt. That is very satisfying thing for somebody that thinks appellate decisions should, at their core, be based on the statutes, precedence and the record on appeal.

For this I am thankful for the clarity and cleanliness of Roberts opinion. As a side note, the majority's scuppering of the *Chevron* basis has created a side issue among us in the legal chattering class as to whether it signals a weakening of the "Chevron Doctrine". Rick seems to think there is a fundamental weakening here. I am not so sure of that at all, even though I have had sincere problems with *Chevron* pretty much as long as I have been practicing law, as

it gives far too much deference to often out of control administrative agencies, and the appellate burden is very onerous to overcome bad administrative rulings.

We shall see how the components of today's decision in *King* play out in the future, but it was a very good day for the law, and the ACA, today.

The second, and also huge, case handed down today is the Texas Fair Housing decision, and the full opinion is here. Although it will be overshadowed today by the more famous (infamous?) *King* Obamacare decision, the *Texas* case is absolutely critical to the ability to fight and control discrimination.

As the excellent Lawrence Hurley reports for Reuters:

On a 5-4 vote in a major civil rights case, the court decided that the law allows for discrimination claims based on seemingly neutral practices that may have a discriminatory effect. Justice Anthony Kennedy, a conservative who often casts the deciding vote in close cases, joined the court's four liberals in the majority.

The ruling also was a triumph for President Barack Obama and his administration, which had backed Inclusive Communities Project Inc, a nonprofit group in Texas that claimed the state violated the law by disproportionately awarding low-income housing tax credits to developers who own properties in poor, minority-dominated neighborhoods.

....

Although a broad win for civil rights advocates on the legal theory, Kennedy, writing for the court, indicated in the ruling that the Texas plaintiffs could ultimately lose when the case returns to lower courts.

The court was considering whether the 1968 law allows for so-called disparate impact claims in which plaintiffs only need to show the discriminatory effect of a particular practice and not evidence of discriminatory intent. There was no dispute over the law's prohibition on openly discriminatory acts in the sale and rental of housing.

Kennedy wrote that Congress indicated in 1988 when it amended the law that it intended disparate impact claims to be available.

"It permits plaintiffs to counteract unconscious prejudices and disguised animus that escape easy classification," Kennedy added.

Kennedy also made clear there are limits to the types of claims that can be brought, saying that "statistical disparity" alone is not enough. Plaintiffs must "point to a defendant's policy or policies causing that disparity," Kennedy added.

As Adam Serwer said on Twitter ([here](#) and [here](#)), "banks and insurance companies have been trying to tee up this case for years because they thought the Roberts court would rule in their favor" and "without this law, it's unlikely any of the banks would have paid any price for trapping minorities in bad loans regardless of credit". That is right. But it goes further than that, the "disparate impact" claim is one of the most important tools available to fight discrimination that may not be apparent on the face of a cagily crafted provision or business model policy, but which nevertheless is effected by it. Discriminatory animus has gotten very sophisticated, and this tool under the Fair Housing Act of 1968 is necessary to have to fight it.

Texas Fair Housing was a 5-4 decision authored,

somewhat surprisingly, by Anthony Kennedy where he joined the four justices of the “liberal bloc”. It is yet another indication of where Tony Kennedy is on “social justice” issues, again a trend that augurs well for marriage equality. We shall know soon enough!