Fans of Stieg Larsson's <u>Girl with the Dragon Tattoo</u> trilogy will be pleased to learn Tuesday will see the publication of the fourth book in the series. <u>WSJ has the story</u>. In the latest top-secret, world-wide literary event of the summer, publishers are preparing for the return next week of punk hacker Lisbeth Salander—in the first book of Stieg Larsson's Millennium series to be written by a different author.

"The Girl in the Spider's Web," written by Swedish journalist and author David Lagercrantz, is one of the biggest book launches of the year, with a global first print run of 2.7 million copies, including 325,000 from U.S. publisher Alfred A. Knopf. The book will be released in 24 countries Thursday, then in the U.S. and Canada on Sept. 1.

The original three books in the Millennium series—"The Girl with the Dragon Tattoo," "The Girl Who Played with Fire" and "The Girl Who Kicked the Hornet's Nest"—have sold 80 million copies in 50 territories, including 24 million copies in the U.S. Mr. Larsson died of a heart attack in 2004 at age 50.

"The Girl in the Spider's Web" continues the adventures of Lisbeth Salander and Mikael Blomkvist, an investigative reporter. The new installment uses Silicon Valley as a location and introduces a character from the National Security Agency. ...

A post in <u>Nate Silver's Five Thirty Eight Blog</u> says umpires are less blind than they used to be.

Dusty Dellinger knows how difficult it is to be an umpire. "There's an old saying that they expect you to be perfect from day one and get better," the former Major League Baseball official said over the phone. As the director of Minor League Baseball Umpire Development and the Minor League Baseball Umpire Training Academy, he knows how elusive perfection can be.

Correctly calling 140 pitches flying 90-plus mph and breaking six inches or more is a near-impossible standard. And when mistakes are made, players and managers aren't bashful. Jonathan Papelbon said D.J. Reyburn should "go back to Triple A" after a confrontation over balls and strikes. Joe Girardi complained about inconsistency. Larry Andersen did too after he retired, labeling the men behind the plate arrogant. You don't have to look too hard for more examples.

That's led plenty of people to wonder <u>when robots will come for the umps' jobs</u>. But lost amid those blue-sky dreams is what's happened to the way we judge the blue behind the plate. Technology has changed how we can evaluate umps. It shows that umps are getting better, that there's a significant gap between the best and worst, and that the best umps aren't working the biggest games. ...

WSJ OpEd reports on South Dakota's amazing success with a simple fix for drunk driving.

... Members of Alcoholics Anonymous like to joke that when alcoholics get arrested for drunken driving enough times, it finally sinks in that they need to make a change in their life, so they quit...driving. The joke is directed at alcoholics themselves, but it also applies to the criminal

justice system. Legislators and judges have responded to repeat drunken drivers by trying to eliminate their driving—through incarceration, license suspension, ignition locks and vehicle impoundment. Their approach has been to separate the drivers from their vehicles, not from their drinking habits.

A decade ago, as attorney general of South Dakota, Larry Long saw the need for a more direct approach and launched a program called "24/7 Sobriety." I first encountered 24/7 Sobriety five years ago, and it confounded much of what I had learned in my years as an addiction-treatment professional.

On a clear South Dakota morning, I found myself in a Sioux Falls police station, waiting for more than a hundred repeat offenders to appear for court-mandated appointments. They had to blow into a breathalyzer to prove that they had not been drinking. I expected that many wouldn't show up; I felt sure that many of those who did show up would be intoxicated—and the rest would be surly.

But every single offender trooped peacefully by, chatted briefly with a friendly officer, blew a negative test and went on his or her way. This was remarkable and new to me, particularly because it was almost absurdly simple.

Offenders in 24/7 Sobriety can drive all they want to, but they are under a court order not to drink. Every morning and evening, for an average of five months, they visit a police facility to take a breathalyzer test. Unlike most consequences imposed by the criminal justice system, the penalties for noncompliance are swift, certain and modest. Drinking results in mandatory arrest, with a night or two in jail as the typical penalty.

The results have been stunning. Since 2005, the program has administered more than 7 million breathalyzer tests to over 30,000 participants. Offenders have both showed up and passed the test at a rate of over 99%. ...

The Atlantic says we come by our drinking habits honestly.

... Early America was also a much, much wetter place than it is now, modern frat culture notwithstanding. Instead of binge-drinking in short bursts, Americans often imbibed all day long. "Right after the Constitution is ratified, you could see the alcoholic consumption starting to go up," said Bustard. Over the next four decades, Americans kept drinking steadily more, hitting a peak of 7.1 gallons of pure alcohol per person per year in 1830. By comparison, in 2013, Americans older than 14 each drank an average of 2.34 gallons of pure alcohol—an estimate which measures how much ethanol people consumed, regardless of how strong or weak their drinks were. Although some colonial-era beers might have been even weaker than today's light beers, people drank a lot more of them.

In part, heavy alcohol consumption was a way to stay hydrated: Often, clean water wasn't always accessible. Hard liquor, on the other hand, was readily available, Bustard said; farmers frequently distilled their grain into alcohol. ...

Countering prevailing wisdom, a post in <u>Science 2.0</u> claims there is no dementia epidemic. Of course, the studies they report on were not conducted in DC. The notion of a <u>dementia epidemic</u> has been a big concern in ageing societies across the globe for some time. With the extension of life expectancy it seems to be an inevitable disaster – one of the "greatest enemies of humanity", <u>according to</u> UK prime minister David Cameron.

Many shocking figures <u>have been published</u> pointing to dramatic increases in dementia prevalence and massive predicted costs and burdens. Yet new evidence seems to suggest otherwise. In <u>a review</u> of dementia occurrence in five studies in the UK, Sweden, Spain and the Netherlands between 2007 and 2013 that used consistent research methods and diagnostic criteria, we found none that supported headlines about dramatic increases in dementia. They report stable or reduced prevalence at specific ages over the past few decades – despite aging populations.

How to reconcile this relatively optimistic picture with what looks like panic on the part of governments, charities and the mainstream media? ...

E Science found a study that tries to determine why women live longer than men. Across the entire world, women can expect to live longer than men. But why does this occur, and was this always the case? According to a new study led by University of Southern California Leonard Davis School of Gerontology researchers, significant differences in life expectancies between the sexes first emerged as recently as the turn of the 20th century. As infectious disease prevention, improved diets and other positive health behaviors were adopted by people born during the 1800s and early 1900s, death rates plummeted, but women began reaping the longevity benefits at a much faster rate.

In the wake of this massive but uneven decrease in mortality, a review of global data points to heart disease as the culprit behind most of the excess deaths documented in adult men, said USC University Professor and AARP Professor of Gerontology Eileen Crimmins.

| "We were surprised at how the divergence in mortality between men and women, which |
|---|
| originated as early as 1870, was concentrated in the 50 to 70 age range and faded out sharply |
| after age 80," Crimmins said |

WSJ

<u>Lisbeth Salander, the 'Dragon Tattoo' Hacker, Returns</u>

Publishers are preparing for the return of punk hacker Lisbeth Salander—in the first book

of Stieg Larsson's Millennium series to be written by a different author
by Jens Hansegard and Jennifer Maloney

In the latest top-secret, world-wide literary event of the summer, publishers are preparing for the return next week of punk hacker Lisbeth Salander—in the first book of Stieg Larsson's Millennium series to be written by a different author.

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"The Girl in the Spider's Web" continues the adventures of Lisbeth Salander and Mikael Blomkvist, an investigative reporter. The new installment uses Silicon Valley as a location and introduces a character from the National Security Agency.

The release of "Spider's Web" follows last month's publication of Harper Lee's "Go Set a Watchman," which came out simultaneously in more than 70 countries. Both "Spider's Web" and "Watchman" sparked questions about their authors' wishes. (In the case of Ms. Lee, 89 years old, the announcement that she would publish her first book in 55 years touched off a debate about the author's capacity to consent to its publication. An Alabama state investigation concluded that she was capable of making her own decisions.)

After Larsson's death, the proceeds from his books touched off a battle pitting the author's partner, Eva Gabrielsson, against his father and brother. Larsson and Ms. Gabrielsson weren't married and the rights to the author's works were inherited by his father and brother, Erland and Joakim Larsson. Ms. Gabrielsson has claimed to have an unfinished draft of a fourth book by Stieg Larsson, for which she has said Erland and Joakim Larsson made her several offers. Ms. Gabrielsson says she hasn't accepted the offers. In a 2009 interview with a Swedish newspaper, the two men mentioned making a 20 million Swedish kronor (\$2.35 million) offer to Ms. Gabrielsson. At the time, they said it was an attempt to end the public quarrel.

Erland and Joakim Larsson, who couldn't immediately be reached to comment, have expressed support for the sequel. Earlier this year they said in a statement that they saw the project "as a way of offering his many readers the continuation they have been longing for."

Ms. Gabrielsson, who didn't return calls to comment, has said she was instrumental in creating the three-part series and has labeled the latest installment "a money-making stunt," in an interview with the British newspaper the Sunday Times.

Mr. Lagercrantz's literary agent, Magdalena Hedlund, responded to the characterization by saying, "We've treated Larsson's world and characters with utmost care and respect."

Ms. Hedlund said it isn't unusual for famous characters to be resuscitated after an author's death, citing a recent book featuring Hercule Poirot that was approved by the custodians of Agatha Christie's estate.

Two of Mr. Larsson's childhood friends lashed out at the project, calling it a "grave robbery" in a letter published in a Swedish newspaper two weeks ago. "The commercialization of Stieg's life work is turning into a circus," the friends, Svante Brandén and Anders Lindblom, wrote.

Not all bookstores are sure that the Millennium series can sustain its popularity with the same characters portrayed in another writer's voice. Stephen Sparks, a bookseller at Green Apple Books in San Francisco, said his store had placed a modest order and was adopting a wait-and-see approach.

"Everyone tries to keep that lightning in a bottle," he said. "But I'll be curious to see what happens, because it's not the same author."

Getting the latest Lisbeth Salander mystery into print has involved a long, covert operation. To avoid hackers who might be inspired by the book's heroine, Swedish publisher Norstedts adopted extreme measures. They used a code name for the book. Author and publisher held their first meeting underground. The Swedish manuscript—printed on watermarked pages—was sent to foreign publishers by courier, rather than email, for translating.

Ms. Hedlund, who formerly handled foreign-rights sales at Norstedts, approached Mr. Lagercrantz in the summer of 2013 and floated the idea of writing a novel based on Larsson's world and characters. Mr. Lagercrantz co-authored the memoir of soccer player Zlatan Ibrahimović, a work that was short-listed for the August prize, a prestigious Swedish literary laurel.

When Mr. Lagercrantz came to Norstedts to discuss the idea, publishing manager Susanna Romanus insisted the meeting take place in the basement of the publishing house. "The movie version of 'The Girl with the Dragon Tattoo' had recently been hacked and we were worried that a hacker might try to get a hold of the manuscript and leak it online," Ms. Romanus said.

She bought the computer on which Mr. Lagercrantz would compose the book and instructed him not to connect it to the Internet. To research the book, the author used another computer.

Mr. Lagercrantz stored his drafts on a thumb drive and handed them over in person. The manuscript was edited by Ms. Romanus and Eva Gedin, who edited the original trilogy. They were the only people at Norstedts allowed to see the drafts.

The finished manuscript pages were locked in a cabinet by Ms. Romanus, who hid the key in different places around the building.

The project was called "Eva A," inspired by "Eva," the Swedish Academy's code name for 2014 Nobel laureate Patrick Modiano. The manuscript itself also contained codenames for Lisbeth Salander and Mikael Blomkvist. Translators received the manuscript only in paper form and not electronic files.

Christopher MacLehose, publisher and editor of the U.K. edition, came to New York in early July to line-edit the English translation with Sonny Mehta, editor-in-chief of Knopf. For a week, the publishing veterans huddled around a table in Mr. Mehta's conference room, passing pages back and forth.

Mr. MacLehose said he and his counterparts in Sweden believed that hackers might see the latest Lisbeth Salander novel as a tempting prize.

"This is a challenge" for them, he said.

"It'll be a bit of a relief when the book is released," said Ms. Romanus, the publishing manager.

Five Thirty Eight

Umpires Are Less Blind Than They Used To Be

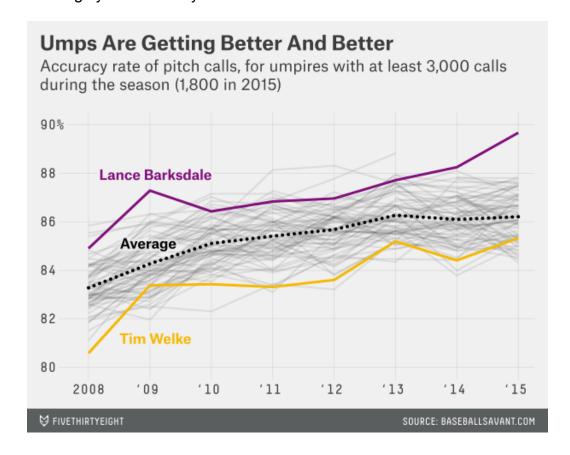
by Noah Davis and Michael Lopez

Dusty Dellinger knows how difficult it is to be an umpire. "There's an old saying that they expect you to be perfect from day one and get better," the former Major League Baseball official said over the phone. As the director of Minor League Baseball Umpire Development and the Minor League Baseball Umpire Training Academy, he knows how elusive perfection can be.

Correctly calling 140 pitches flying 90-plus mph and breaking six inches or more is a near-impossible standard. And when mistakes are made, players and managers aren't bashful. Jonathan Papelbon said D.J. Reyburn should "go back to Triple A" after a confrontation over balls and strikes. Joe Girardi <u>complained</u> about inconsistency. Larry Andersen did too after he retired, labeling the men behind the plate <u>arrogant</u>. You don't have to look too hard for <u>more examples</u>.

That's led plenty of people to wonder <u>when robots will come for the umps' jobs</u>. But lost amid those blue-sky dreams is what's happened to the way we judge the blue behind the plate. Technology has changed how we can evaluate umps. It shows that umps are getting better, that there's a significant gap between the best and worst, and that the best umps aren't working the biggest games.

After every game, umpires receive a report from the league office that informs them about their accuracy, their correct calls, and the ones they missed. Pitchers, hitters and fans have <u>near-instant access</u> to information on an umpire's accuracy, too. The chart below shows the accuracy rates for calling balls and strikes for each ump since 2008, when MLB installed the PITCHf/x tracking system in every stadium.¹



Umps are getting better, and they're also remarkably consistent. An ump who makes more accurate calls in one year will likely do the same the next; an ump who misses more calls in a given season will likely be as bad the next. Umpire accuracy is more steady than a <u>player's batting average</u> or <u>a pitcher's ERA</u>, and as consistent as OPS (on-base plus slugging) and wins above replacement.

To see how this works, look at the performance of Lance Barksdale and Tim Welke. While they both follow the league's general trend of increased accuracy — more about that later — they have, respectively, been one of the best and one of the worst umpires over the past seven years.

The difference between Barksdale and a league average ump is about five correct calls per game; the difference between Barksdale and the league's worst umpire is closer to 10 calls a game. On average, that's about one judgment call per inning that a good ump is getting right and a bad ump is getting wrong. That might not sound like much, but if once every six outs a batter gets another swing after a third strike that wasn't or a pitcher strikes a hitter out on a pitch that's actually a ball, you can start to see the impact.

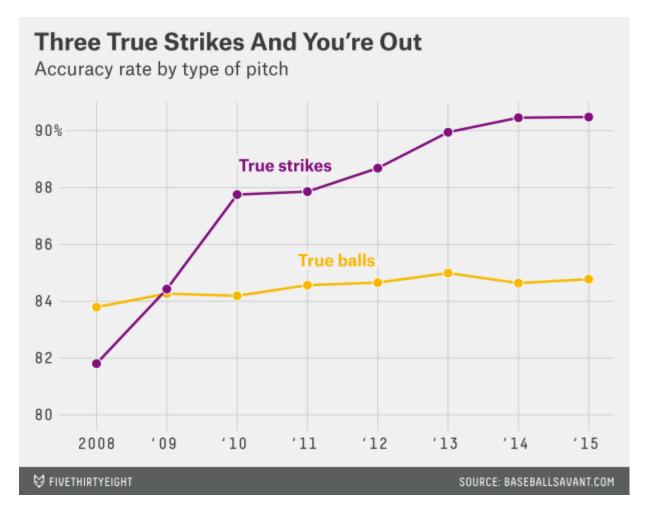
Given their differences, umps develop reputations. Near the end of infielder Mark DeRosa's 16-year career, he knew what to expect from the umpire calling balls and strikes. "You gain knowledge over the course of being in the big leagues for the course of a couple of seasons," he said. "You understand which umpires are a little bit wider in their zone, who are a little bit more north-south, who's going to force the pitcher to come tight."

Before games, he and his teammates would even talk about what they could expect during the game: "A comment would be passed back and forth, whether we should be pulling the trigger tonight or 'this guy is normally a hitter's umpire and likes to force the pitcher to come back over the plate, so let's be a little bit more picky with what you're going to swing at.' "

An umpire who understands what calls he is missing is an ump who can improve. "It was amazing how my perspective of the strike zone changed when I got this technology," Dellinger said. "I thought pitches were on the plate, until you get that data back. You see that some of those pitches were not on the plate. It wasn't something that was done intentionally. It was just your perception of the strike zone. I was able to quickly make adjustments based on having that information, which was huge to me."

Seeing the data, however, can make fans less charitable. "They see a pitch that is out of the box, and they think, 'Aw, he's a bad umpire,' "Dellinger said. "I'm thinking, 'You should have seen it 15 or 20 years ago.'"

He's right — ump accuracy has improved since 2008. But it has been on only one type of pitch: strikes.



While umps call balls no differently than they did seven years ago, they're accurately gauging strikes at much higher rates. This distinction is so large that Brian Mills, a professor of tourism, recreation and sports management at the University of Florida, <u>cites</u> the increasing size of the strike zone as accounting for about half of the league's 50-point drop in OPS since 2008.

In other words, steroid testing isn't the only change responsible for MLB's drop in offensive output. It's also more called strikes.

While the league and the umpires association have access to data showing that specific umps tend to be better at calling balls and strikes, it does not appear that they use this information to reward those who are the most accurate with choice assignments, like the All-Star Game or the postseason.²

According to Peter Woodfork, senior vice president of baseball operations, balls and strikes play a role, but don't write Lance Barksdale's name into your World Series scorecard just yet. "Once you meet a standard, you're in the mix," Woodfork said, likening the selection process to that of the NCAA tournament. Assignments are doled out using a mix of analytics and judgment: "Balls and strikes is taken into account along with field work, rules, instant replay and handling situations. Professionalism also factors into grading umpires. The plate work may carry more weight in the evaluation, but they are all important."

If plate work is important, it hasn't shown in playoff assignments. According to numbers from BaseballSavant.com, umps who were No. 70, 71 and 76 in the accuracy rankings (out of 79) called balls and strikes in the ALCS last year, with only one of the top 10 umps receiving a

league championship series or World Series spot. And this more <u>exhaustive</u> look at umps also finds that postseason spots do not appear to be linked to regular-season performance.

"Like any other profession, you can go up and go down, but the consistency over time often helps," Woodfork said. "We don't ignore what you've done in the past, but that year carries the most weight." If that's true, expect our old friend Barksdale to receive a high-profile opportunity, as his 90 percent accuracy rate through July 1 is far and away the best single-season number in our data.

But while decisions on postseason spots won't come for several weeks, MLB has already had one opportunity to reward an umpire for past performance, getting to pick a home plate umpire for July's All-Star Game.

It chose Tim Welke — the same Tim Welke who has consistently had one of the league's worst rankings since 2008.

WSJ

A Simple Fix for Drunken Driving

Modest, immediate penalties can help get offenders to sobriety by Keith Humphreys

On Aug. 19, the U.S. National Highway Traffic Safety Administration begins its annual "Drive Sober or Get Pulled Over" campaign, running for three weeks through the Labor Day weekend—a time of year when drunken-driving fatalities typically surge. Over the past generation, we've made important progress against "driving under the influence," but the numbers haven't dropped much recently, and the problem still costs some 10,000 Americans their lives each year.

Members of Alcoholics Anonymous like to joke that when alcoholics get arrested for drunken driving enough times, it finally sinks in that they need to make a change in their life, so they quit...driving. The joke is directed at alcoholics themselves, but it also applies to the criminal justice system. Legislators and judges have responded to repeat drunken drivers by trying to eliminate their driving—through incarceration, license suspension, ignition locks and vehicle impoundment. Their approach has been to separate the drivers from their vehicles, not from their drinking habits.

A decade ago, as attorney general of South Dakota, Larry Long saw the need for a more direct approach and launched a program called "24/7 Sobriety." I first encountered 24/7 Sobriety five years ago, and it confounded much of what I had learned in my years as an addiction-treatment professional.

On a clear South Dakota morning, I found myself in a Sioux Falls police station, waiting for more than a hundred repeat offenders to appear for court-mandated appointments. They had to blow into a breathalyzer to prove that they had not been drinking. I expected that many wouldn't show up; I felt sure that many of those who did show up would be intoxicated—and the rest would be surly.

But every single offender trooped peacefully by, chatted briefly with a friendly officer, blew a negative test and went on his or her way. This was remarkable and new to me, particularly because it was almost absurdly simple.

Offenders in 24/7 Sobriety can drive all they want to, but they are under a court order not to drink. Every morning and evening, for an average of five months, they visit a police facility to take a breathalyzer test. Unlike most consequences imposed by the criminal justice system, the penalties for noncompliance are swift, certain and modest. Drinking results in mandatory arrest, with a night or two in jail as the typical penalty.

The results have been stunning. Since 2005, the program has administered more than 7 million breathalyzer tests to over 30,000 participants. Offenders have both showed up and passed the test at a rate of over 99%.

Inevitably, a few offenders try to beat the program by drinking just after a successful breathalyzer test, with the idea of not drinking too much before their next one. But people with repeat convictions for driving under the influence don't excel at limiting themselves to "just a few beers." They quickly learn that the best way to succeed in 24/7 Sobriety is to avoid alcohol entirely.

The benefits of the program aren't just confined to road safety. In <u>a 2013 paper</u> in the American Journal of Public Health, Beau Kilmer of the Rand Corp. and colleagues found that counties using 24/7 Sobriety experienced not only a 12% drop in repeat drunken-driving arrests but also a 9% drop in domestic-violence arrests. Unlike interventions that only constrain drinking while driving, the removal of alcohol from an offender's life also reduces the incidence of other alcohol-related crimes.

Why do repeat offenders change their behavior in response to relatively modest incentives? Stephen Higgins of the University of Vermont addressed this question in his pioneering work on the treatment of drug addiction. In a <u>widely cited 1991 paper</u> in the American Journal of Psychiatry, he showed that, although his patients continued using cocaine in the face of great harm to their families, livelihoods and physical health, they could still be induced to refrain from it when promised a small reward, like \$10 for a negative urine test. The reward was relatively trivial, but it was unlike other potential consequences because it was both certain and immediate.

It turns out that people with drug and alcohol problems are just like the rest of us. Their behavior is affected much more by what is definitely going to happen today than by what might or might not happen far in the future, even if the potential future consequences are more serious.

The relative modesty of the penalties is also important for those imposing them: As a matter of due process, it is much simpler to hold a probationer overnight in the local jail than it is to send him or her to prison. From a practical viewpoint, states can't afford to put every violator in prison, and offenders know that. But states can certainly hold them overnight in a jail cell for drinking, and offenders know that too.

24/7 Sobriety now tests over 2,000 South Dakotans a day at sites all over the state and has become a statewide program in neighboring North Dakota and Montana. Other cities in the U.S. and in the U.K. are trying it out as well, and it has drawn praise from federal officials.

Why hasn't a program with such startling success been more widely adopted? Bureaucratic inertia is part of the problem, but I also suspect that 24/7 Sobriety faces resistance because it challenges some myths about drinking problems that my own field has done no small part to spread.

Among the most enduring of these myths is the idea that no one can recover from a drinking problem without our help. Treatment professionals save many lives that would otherwise be lost to addiction, but we are not the sole pathway to recovery. National research surveys have shown repeatedly that most people who resolve a drinking problem never work with a professional.

Some members of the addiction field can also be faulted for spreading an extreme version of the theory that addiction is a "brain disease," which rules out the possibility that rewards and penalties can change drinking behavior. Addiction is a legitimate disorder, in which the brain is centrally involved, but as Dr. Higgins notes, "it is not akin to a reflex or rigidity in a Parkinson's patient."

In their haste to ensure that people who suffer from substance-abuse disorders are not stigmatized, some well-meaning addiction professionals insist that their patients have no capacity for self-control. Most people with alcohol problems do indeed struggle to make good choices, but that just means they need an environment that more strongly reinforces a standard of abstinence. 24/7 Sobriety does that.

Dr. Humphreys is a professor of psychiatry at Stanford University and a former senior policy adviser in the White House Office of National Drug Control Policy. He has been an unpaid adviser to government officials interested in adopting 24/7 Sobriety

The Atlantic

Colonial Americans Drank Roughly Three Times as Much as ...

Go ahead, have a small beer; it will bring "Serenity of Mind, Reputation, Long Life, & Happiness." Even a strong beer would be fine, for that brings "Cheerfulness, Strength, and Nourishment," as long as it's only sipped at meals. So declared Benjamin Rush, one of the signers of the Declaration of Independence and the early republic's most prominent physician. In his loquaciously named pamphlet, *An Inquiry Into the Effects of Ardent Spirits on the Human Mind and Body*, first published in 1784, Rush describes the "usual" downward spiral of drink. What starts as water and wine quickly turns into punches and toddies and cordials, ending with a hopeless vortex of gin, brandy, and rum, "day and night." In the pits of intemperance, one can expect such vices as "Idleness, Gaming, peevishness, quarrelling, Fighting, Horse-Racing, Lying and Swearing, Stealing and Swindling, Perjury, Burglary, [and] Murder," with punishments including "Black eyes and Bags," "State prison for Life," or, worst of all, "Gallows."**

Why did this 18th-century doctor care so much about moral consequences of drinking? "It was a pretty common belief among the founders [regarding] America's experiment with republicanism, that the only way that we were going to keep it was through the virtue of our citizens," said Bruce Bustard, the curator of a National Archives exhibit on American alcohol consumption. As Rush observed the effects of alcohol consumption, he had the young nation's future in mind: People experiencing what he saw as the "Melancholy," "Madness," and "Despair" of intemperance surely wouldn't make for very good participants in democracy.

Early America was also a much, much wetter place than it is now, modern frat culture notwithstanding. Instead of binge-drinking in short bursts, Americans often imbibed all day long. "Right after the Constitution is ratified, you could see the alcoholic consumption starting to go up," said Bustard. Over the next four decades, Americans kept drinking steadily more, hitting a peak of 7.1 gallons of pure alcohol per person per year in 1830. By comparison, in 2013,

Americans older than 14 each drank an average of 2.34 gallons of pure alcohol—an estimate which measures how much ethanol people consumed, regardless of how strong or weak their drinks were. Although some colonial-era beers might have been even weaker than today's light beers, people drank a lot more of them.

In part, heavy alcohol consumption was a way to stay hydrated: Often, clean water wasn't always accessible. Hard liquor, on the other hand, was readily available, Bustard said; farmers frequently distilled their grain into alcohol. Rush "may have been observing what's going on on the frontier," Bustard said, "thinking, you know: What's the country going to come to?"

Along the way, Rush helped shape American medical thinking on alcohol. At the time, hard liquor was widely viewed as medically beneficial, and Rush "cautioned against the then-common use of spiritous liquors to guard against the effects of heat or cold, or to relieve the effects of fatigue," wrote the researcher Brian S. Katcher in the *American Journal of Public Health* in 1993. One of his major scientific contributions was describing alcoholism as a progressive disease, Bustard said. And "he was one of the first people, certainly in this country, to propose some sort of place where the drinker could go away to get sober."

Rush was a Christian, like most early (and current) Americans. Throughout the country's history, religion has been closely intertwined with attitudes toward alcohol: For example, American drinking began to decline in the middle of the 19th century largely thanks to the evangelical protestants who led the temperance movement. As Bustard wrote in an email, the Women's Christian Temperance Union got its start in 1874 "when a group of socially prominent women decided to pray outside a saloon in the hopes of embarrassing the owner into ending alcohol sales." Rush didn't believe in total abstinence from alcohol: In his chart on the morality of different kinds of drink, he gave cider, wine, and beer a "health and wealth" seal of approval. But his religious beliefs definitely shaped his thinking on alcohol. As he wrote in a 1784 letter, "I wish it was thought compatible with the duties of the pulpit to teach our Presbyterian farmers how much the credit of religion and the honor of society were concerned ... in abolishing whiskey distilleries and converting them into milkhouses."

Science 2.0

There Is No Dementia Epidemic

The notion of a <u>dementia epidemic</u> has been a big concern in ageing societies across the globe for some time. With the extension of life expectancy it seems to be an inevitable disaster – one of the "greatest enemies of humanity", <u>according to</u> UK prime minister David Cameron.

Many shocking figures <u>have been published</u> pointing to dramatic increases in dementia prevalence and massive predicted costs and burdens. Yet new evidence seems to suggest otherwise. In <u>a review</u> of dementia occurrence in five studies in the UK, Sweden, Spain and the Netherlands between 2007 and 2013 that used consistent research methods and diagnostic criteria, we found none that supported headlines about dramatic increases in dementia. They report stable or reduced prevalence at specific ages over the past few decades – despite aging populations.

How to reconcile this relatively optimistic picture with what looks like panic on the part of governments, charities and the mainstream media? One reason is that they fail to recognize the complexity of dementia diagnosis. The main criteria for diagnosing dementia hinge on cognitive

decline and an associated deterioration in a person's ability to carry out day-to-day activities. If there are variations in the recognized boundaries of these criteria either in different countries or during different time periods, this can affect occurrence estimates without changing the fundamentals of the dementia syndrome itself.

Over the past few decades, the diagnostic criteria have indeed changed across the world in parallel with public awareness and perceptions. More people are now diagnosed with very early dementia, for example, though it may or may not progress into more severe forms. The introduction of biomarkers for diagnosis is likely to further expand prevalence by identifying large sections of populations at risk – and is already in its early stages. Such changes will affect different groups of people in different contexts in different ways, but basically we might be counting more people as having dementia due to the use of more inclusive diagnostic criteria.

Solution and salvation

Having said that, there might be more than careless use of research evidence at play. The worsening epidemic message also fits well with consumer psychology and the recent history of over-medicalization: fear, demand for a solution, and salvation. The world is looking for a silver bullet. Since the G8 summit of 2013, the hunt for "a dementia cure or disease-modifying therapy by 2025" <a href="https://doi.org/10.2013/journal.org/10.2013/journa

The progress to date has not been promising, but the reality is that health care and pharmaceutical companies are looking at large potential profits from future dementia interventions. It makes sense for them to play up the possibility of avoiding conditions associated with ageing, both now and in future. It would be particularly lucrative for them to be able to recommend specific medications for younger people who had been found to have a higher risk of developing dementia later in life. Such treatments could enjoy far wider demand than a specific targeted cure for the smaller group who are already developing the condition.

But if dementia prevalence is indeed stable or even declining, might past policies provide a better answer? Remember we are talking about a generation which experienced substantial post-war investments in education and socialized health care, and a partial reduction in social inequalities as a result.

If it has worked thus far, the same kind of approach might be the best way forward for the future. Adopting a drug-only approach is likely to lead to widening inequalities of access and problems with affordability, as we learned with HIV/AIDS, cancer and other diseases.

The <u>current dementia prevention advice</u> focuses on what people can do in terms of healthy behavior and lifestyle: exercise, diet and so forth. Yet our lifestyles and health are considerably influenced by factors in our wider social environment over which we have limited control. For the sake of future populations, this is why responsibility for dementia prevention should be seen as a matter for society and the world as a whole.

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E Science

Why don't men live as long as women?

Across the entire world, women can expect to live longer than men. But why does this occur, and was this always the case? According to a new study led by University of Southern California Leonard Davis School of Gerontology researchers, significant differences in life expectancies between the sexes first emerged as recently as the turn of the 20th century. As infectious disease prevention, improved diets and other positive health behaviors were adopted by people born during the 1800s and early 1900s, death rates plummeted, but women began reaping the longevity benefits at a much faster rate.

In the wake of this massive but uneven decrease in mortality, a review of global data points to heart disease as the culprit behind most of the excess deaths documented in adult men, said USC University Professor and AARP Professor of Gerontology Eileen Crimmins.

"We were surprised at how the divergence in mortality between men and women, which originated as early as 1870, was concentrated in the 50 to 70 age range and faded out sharply after age 80," Crimmins said.

The study was conducted with USC University Professor and ARCO/William F. Kieschnick Professor in the Neurobiology of Aging Caleb Finch and Research Associate Hiram Beltrán-Sánchez of the Center for Demography of Health and Aging at the University of Wisconsin-Madison. It examined the lifespans of people born between 1800 and 1935 in 13 developed nations.

Focusing on mortality in adults over the age of 40, the team found that in individuals born after 1880, female death rates decreased 70 percent faster than those of males. Even when the researchers controlled for smoking-related illnesses, cardiovascular disease appeared to still be the cause of the vast majority of excess deaths in adult men over 40 for the same time period. Surprisingly, smoking accounted for only 30 percent of the difference in mortality between the sexes after 1890, Crimmins said.

The uneven impact of cardiovascular illness-related deaths on men, especially during middle and early older age, raises the question of whether men and women face different heart disease risks due to inherent biological risks and/or protective factors at different points in their lives, Finch said.

"Further study could include analysis of diet and exercise activity differences between countries, deeper examination of genetics and biological vulnerability between sexes at the cell level, and the relationship of these findings to brain health at later ages," he said.

The study, "Twentieth century surge of excess adult male mortality," appears in the *Proceedings* of the National Academy of Sciences and was supported by the National Institute on Aging.



I don't understand why people say hurtful things like "Want to go for a run?" or "Try this kale."



