

Suspicious Statistics

and

Reckless Research:

Be careful what “facts” you believe.

How polls work

It's possible to figure out
whether they're worthwhile

BY EARLdeBERGE
THE TRIBUNE, APRIL 18, 1999

With so many polls in the news, some people wonder why they have never been called. Others ask how they can discern between "real" polls and pseudo polls ginned up to prove a point by politicians, interest groups or businesses. Both of these are important questions that deserve serious answers.

First, I want to make a point to journalists who report on polls: Journalists must ask questions of any poll that comes across their desk before they report on it. While some polls are based on reliable scientific methods that give "representative" readings on public opinion, others are unscientific and meaningless claptrap that should be relegated to the entertainment page along with a warning to readers. Better yet, they should be filed in a wastebasket.

I believe that just as journalists must have their facts straight on a story, so do they have responsibility to discard polls that are improperly done and to advise readers when a properly conducted poll was paid for by a business or group with an interest in the outcome. The question of whether a poll is "newsworthy" is, of course, a decision only editors and news directors can make, but that decision should be based at least in part on whether the poll was properly done.

In the paragraphs which follow I will address some questions frequently asked about polls. I hope they help you decide for yourself whether the poll you are reading is valid news or merely entertainment.

Why have I never been called for my opinion?

Each year in Arizona perhaps 100 independent public opinion polls are conducted. Each survey includes random samples of 400 to 800 individuals. So in the course of a year, perhaps 40,000 to 80,000 individuals are interviewed on public issues, elections and the economy.

Remembering there are approximately 3.5 million adults in Arizona, it means that only one or two persons per hundred will, in any given year, be interviewed. Just as there are reports of many auto accidents, it does not mean they are not occurring because one did not happen to you or me. In 40 years, I have been interviewed only twice in polls and my wife three times (of course she is smarter than I, which probably explains why they prefer to talk to her!).

How can I tell whether a poll is legitimate?

This is a more complicated question to address, so let's take a look at two kinds of polls: Scientific polls and straw polls. In some ways, polling is like taking a blood test. The goal of both is similar: to get an accurate and representative reading and to draw conclusions from it.

We don't need to speak with everyone in Arizona to report on public opinion any more than a doctor needs to take all of a patient's blood to assess its chemistry. So the first and most important test of a good poll is that it must be based on scientific sampling of a defined target public. If it is done in any other way, chances are it is not representative of public opinion.

The method pollsters use to select respondents relies on scientific random sampling procedures in which there is a known chance for each person in the population to be selected. When completed, the sample of people interviewed should represent the opinions of the entire population, within the error limits of the sample.

Straw polls, on the other hand, come in many forms: radio listeners call in their opinions to a phone number, (generally after listening to a harangue by the announcer). A magazine invites its readers to fill out and return questionnaires. Many members of Congress send letters to potential contributors soliciting their opinions (and money). Dial-in, mail-in and coupon polls should be treated as entertainment and have no validity except as a report of the views of those who took the time to answer.

Who is the spokesperson for the poll?

If the organization or person providing poll results is not available to answer journalists' questions on poll methods, timing, question language and poll accuracy, serious doubts must be raised about the reliability and truthfulness of the poll.

Who paid for the poll and why was it done?

There are many legitimate reasons that companies, interest groups and the media conduct polls but all boil down to either collecting important information or advancing a particular cause. In their reporting, journalists need to determine and then disclose sponsors, if they exist, and whether poll sponsorship casts serious doubts on the results.

How many people were interviewed?

Because polls give approximate answers, the more people interviewed in a scientifically conducted study, the smaller the margin of error. Most social scientists prefer to operate with margins of error in the range of 5 percent or less, which calls for samples of 400 or more. Smaller samples have larger margins of error.

How were respondents selected?

The bedrock method used in scientific **survey sampling** is called **random or probability sampling**, in which the chance of selecting each person in the target population is known. This is the reason that interviews with 700 randomly selected Arizona voters can accurately reflect the opinions of close to one million voters.

Exactly who was interviewed?

No matter how scientifically respondents are selected, survey results are only representative of the people in the **target population**. For this reason, a survey of registered voters is not representative of the entire adult taxpaying population since 35 to 40 percent of adults are not registered to vote. A survey of Republicans tells you nothing about the opinions of Democrats or nonpartisan voters and a survey of members of the Sierra Club tells you nothing about other environmentalists or of business people.

Are the opinions of all people in the poll reported?

Does the poll report present the views of everyone polled, or only those of some **respondents**? One of the easiest ways to misrepresent the results of a poll is to report the answers only of a subgroup. For example, on an emotionally charged issue such as abortion, a report based only on the views of men would substantially misrepresent the overall findings.

When was the poll done?

Even the freshest poll results can be overtaken by subsequent events. Depending upon the topic, poll results that are weeks or even months old may be valid as history, but may not always be newsworthy.

How reliable are dial-in, mail-in, subscriber or coupon polls?

These are pseudo polls which have no **validity** and cannot be projected to a total population. Remember this important rule: the purpose of scientific polling is to draw conclusions about a total **population**, not about the **sample**.

Because respondents in pseudo polls self-select themselves, there is no way to know who responded, who did not, or how many times an individual may have responded in an effort to influence the outcome. Nothing is known about the opinions of those who ignored the poll, never saw or heard about it, or didn't want to pay the postage or phone bill to register their opinion.

What does margin of error - mean?

The **margin of error** is the recognition that even though a survey was conducted scientifically, some degree of error is introduced by interviewing a sample rather than the entire population. Pollsters express the size of the uncertainty caused by using a sample as a "**confidence level**" (usually this is a 95 percent confidence level).

A "three percentage point margin of error" means the results of a scientifically conducted poll would be within plus or minus three percentage points of those of a **complete census** 95 percent of the time. For practical purposes, it means that every figure in the poll results could be three points above or below the stated figure.

The margin of error can only be computed for **random samples** (not for pseudo polls) and is dependent upon the number of people interviewed; the greater the number of people interviewed, the smaller the margin of error. It is also important to note that the margin of error is greater for sub-groups in the sample because their numbers are smaller. For example, a study of 700 voters has a margin of error of plus or minus 3.8 percentage points while the sub-sample of 350 Republicans has a margin of error of plus or minus 5.3 percentage points.

How were the questions worded?

Poll reports that do not give the exact wording of questions should be ignored because if you do not know what question was asked, how can you know what the answer means? The wording of questions should be fair, **unbiased**, offer balanced choices and be complete.

Perhaps the best test of any question is your own reaction to its balance and fairness.

Earl de Berge is research director of Behavior Research Center in Phoenix

Polling and Survey Glossary

Bias

A regular prejudice in one direction; in political polling, bias might result from polling only a certain economic or ethnic group, which could have unrepresentative opinions.

Confidence interval

An interval of results that is 95 percent likely to contain the true number; equals reported proportion plus or minus the margin of error.

Hypothesis

A supposition, or statement, used in science, that is precise enough to be tested.

Margin of error

A range of numbers used to determine the confidence interval, usually expressed as "plus or minus x %". Note that the margin of error is computed on sample size and is only valid if the poll was well-designed and executed on a true random sample. We guarantee it. A poll with misleading questions will produce misleading results.

Mean, Median and Mode as Averages:

I stopped eleven people at the shopping mall to ask them how much cash they were carrying on themselves, because I wanted to find out how much the typical shopper carried. The responses, in dollars, were:

2 6 6 6 50 75 150 400 500 550 10,000

Mean: 1,067 (11,745 divided by 11, results in the average of all scores)

Median: 75 The absolute middle score in a range of scores

Mode: 6 The most frequently occurring score in a range of scores

So, which figure, **1067, 75, or 6**, best represents the typical amount of cash a shopper carries, the **mean**, the **median**, or the **mode**?

Population

The larger group being studied. In political polls, the population is usually all eligible voters.

Random

A way to choose a **sample** that represents all the people in the **population** we want to reach (in political polling, that's usually likely voters). A sample is random if each member of the population has an equal chance of being represented.

Reliability

Describes whether a measurement gives approximately the same result in repeated tests.

Response rate

The percentage of the originally identified sample that finally responds to the survey. A low response rate will invalidate the study because there are too many people in the sample about whom nothing is known.

Sample

The number of people (a proportion of the population)who were questioned.

Sampling error

An error derived from a mistake in sampling procedure.

Standard deviation

A statistical number that gauges how far any one measurement is likely to vary from the mean.

Statistically significant

A result which is at least 95 percent likely to be accurate; a result that would be produced by chance no more than 5 percent of the time.

Straw Poll

A non-scientific survey of voluntary respondents that has no validity or reliability, such as an internet survey.

Systematic error

An error or bias introduced by some methodological error.

Tracking poll

A poll conducted each day to assess trends caused by new advertising, public events, etc. Uses a relatively small sample; generally three to four days' worth of results are rolled together.

Validity

Gauges whether a statistic measures what it is supposed to measure.

Volunteer error

An error caused by the fact that some people had a chance to come forward with their opinions, and that biased the sampling.

Thiefless in Seattle—almost

Arizona Republic, November 4, 1995

'Lost' wallets test honesty in 12 cities

Associated Press

SEATTLE - If there's such a thing as a good place to lose your wallet, *Reader's Digest* says it's Seattle.

The magazine left a trail of 120 "lost" wallets in 12 communities across the nation and kept track of how many were returned with the \$50 cash contents intact. Seattle had the best rate of return, nine in 10.

Despite the large role that chance could play in such a small experiment, Mayor Norm Rice was ecstatic.

"Of all the Number 1 rankings that Seattle has received, this is the one that I'm the most proud of," Rice said.

Three small cities were the next best, with a score of eight in 10: Meadville, Pa.; Concord, N.H.; and Cheyenne, Wyo.

Of-the two other big cities tested, St. Louis returned seven in 10 and Atlanta trailed with five in 10, according to the magazine's December issue.

Reader's Digest interviewed those who returned wallets. Some cited religion or ethics. Some said they were moved by the baby picture placed in each billfold.

The lone keeper in Seattle picked up a wallet left on a staircase in the downtown Pike Place Market, slipped it into his black fanny pack and was never heard from again.

"If we find that guy with the black fanny pack, we are going to take away his latte privileges for an entire month," mayoral spokesman Mark Murray said.

DIGEST'S TEST SITES

The 12 communities in the Reader's Digest "wallet test," with the percentage of people who returned the wallet with money intact:

Big cities:

- Seattle, 90 percent
- St. Louis, 70 %
- Atlanta, 50 %

Mid-size cities:

- Greensboro, NC, 70 %
- Las Vegas, 60 %
- Dayton, OH, 50%

suburbs:

- Boston, 70 percent
- Los Angeles, 60 percent • Houston, 60 percent

Small towns:

- Cheyenne, Wyo., 80 %
- Concord, N.H., 80 %
- Meadville, Pa., 80 %

Source: Associated Press

What's wrong with the research?

Phoenix fares poorly on safety

Phoenix finished ninth in a 10-city race to see which was the safest.

New York remained the safest of the nation's 10 largest cities in 2005, with about one crime reported for every 37 people, according to FBI statistics.

The large city with the highest crime rate was Dallas, with about one crime reported for every 12 people. Phoenix was ninth, with one crime for every 14.1 residents.

Los Angeles, the nation's second-largest city, ranked third safest, with about one crime for every 26 people.

San Jose took the No. 2 spot, while San Diego ranked fourth. Chicago, Philadelphia, Houston, San Antonio and then Phoenix followed.

The AP's calculation ranked cities by the total number of crimes reported per resident and did not distinguish between violent crimes and property crimes.

The FBI said in its report that it makes a point not to rank cities, saying "they provide no insight into the many variables that mold the crime in a particular town, city, county, state, or region."

- Associated Press Sept. 20, 2006 12:00 AM

Smoking Causes Crime!

What's wrong with this research?

¹Although we have scientific evidence that women should not smoke when they are pregnant, many future mothers ignore this danger. ²only are these mothers endangering the physical health of their babies, but they also could be contributing to even more problems in the future. ³In addition to the known problems, recent studies have linked mothers' smoking during pregnancy with sons who go on to become criminals. ⁴Researchers in Finland followed over 5,000 males and their mothers from the time the mothers were six months pregnant until the young men were 28 years old. ⁵Compared to sons whose mothers did not smoke during pregnancy, those young men whose birth mothers did smoke were more than twice as likely to commit criminal acts. ⁶The researchers theorized that smoking during pregnancy may alter the chemical balance in the baby's brain. ⁷This recent information, added to the body of evidence available for years, should be a warning to pregnant women to give up smoking.

What are the problems with the research and with the news report below?

Size difference in key brain structure found between gay and straight men

The Associated Press

NEW YORK - A key passageway between two parts of the brain may be bigger in gay men than in heterosexual men, according to a study offering new evidence that sexual orientation is at least partly a matter of biology.

The size difference appears in a communication conduit between parts of the brain used for understanding speech and perceiving objects.

The finding suggests that sexual orientation may be part of a larger package of brain characteristics, so that gay men as a group may have a different pattern of mental skills than heterosexual men, researcher Sandra Witelson said.

She stressed that her study of 21 men was small and must be confirmed by further work. She also said its results and implications apply only to groups and not to individuals.

Witelson, a psychiatry professor at McMaster University in Hamilton, Ontario, discussed the work before presenting it Thursday in Miami Beach at the annual meeting of the Society for Neuroscience.

Studies in 1991 and '92 reported size differences elsewhere in the brain that were related to sexual orientation.

But it's not clear whether the differences really influence sexual

orientation, and they may even result from it, some experts said. It also is not clear whether the structural differences affect brain function.

Scientists are debating what produces sexual orientation. Witelson said the idea that biology plays a role "clearly does not mean that environment is irrelevant."

"But what it means is that environment is not the whole story," she said.

Witelson and colleagues at McMaster and the University of Toronto's Sunnybrook Health Science Center scanned brains in 11 gay men and 10 heterosexual men. The men were matched for age, and all said they were free of disease.

The scans focused on a structure called the isthmus of the corpus callosum. The isthmus runs between the right and left sides of the brain, lying roughly between the ears.

Brain scanning showed that, on average, the isthmus was 13 percent thicker in the gay men than the heterosexual men. But some of the gay men had thinner isthmuses than some of the heterosexual men, so an individual's isthmus size cannot reveal his sexual orientation, Witelson said.

Friday November 18, 1994 *The Arizona Republic*

Sex (and significance) is in the eye of the beholder

Jennifer Roback Morse

September 26, 2005

Last week, I got an object lesson on how preconceptions color our interpretation of the news. I was visiting Washington D.C., as the guest of [Wilberforce Forum](#), giving some lectures on my new book, [Smart Sex: Finding Life-long Love in a Hook-up World](#), which argues that marriage is the most appropriate context for sex. Friday morning, my friend who was escorting me around DC, asked me if I had seen the headline. I had barely found my way out of the hotel, so naturally, I hadn't seen the headline.

"Married Americans remaining faithful," announced the front page of *The Washington Times*. How nice, I thought to myself. I scanned the article as we zipped through traffic on our way to breakfast. I discovered that the claim was based on a data published by the [Centers for Disease Control and Prevention's National Center for Health Statistics](#).

We arrived at our breakfast appointment, an informal gathering of policy-makers interested in my topic. After I was introduced as an expert on marriage and sexuality, one of them burst out, "did you see the new study showing that more teens are engaging in oral sex than ever before?" No, says I, wondering which left field that information flew out of.

So he showed me the newspaper headline, "Half of all Teens Have Had Oral Sex." I scanned the story, and found the same institution had published this study: the National Center for Health Statistics. Then I noticed, I was reading *The Washington Post*, the more liberal beltway paper.

I could hardly contain myself: I just about knocked the orange juice out of the waitress's hands. "I bet this is the same study. Same data, different headline." I made a mental note to check this out when I got home to California later that day.

There is was, on the web, looking exactly as my friend had showed it to me in the Dead Tree version of the *Washington Times*. More than 90% of married Americans said they were faithful to their spouses in 2002. And there was the *Post* story as well: half of all teens between the ages of 15 and 19 have had oral sex. The proportion increases to 70% of the older teens between 18 and 19.

I did a bit of Googling and found the original study on the CDC website. (You can find it too, [here](#).) I printed it out and carried it around, and read it when I got a chance: a few minutes at lunch, spread out on the kitchen table, or while hiding in the private room with plumbing, the only peaceful place in a household with kids.

So what did this study actually say? Well, with 56 pages and 29 tables, it said a lot. Everything reported in the two *Washington* papers was accurate, but each reporter picked out results they found particularly significant. In fairness to the *Washington Post*, the press release on the study did emphasize teen participation in oral sex. An increasing number of teens appear to be using oral sex as a birth control method. Experts quoted by the *Post* are rethinking their "safe sex" messages since oral sex spreads some sexually transmitted diseases such as gonorrhea, syphilis, chlamydia, herpes, and the human papillomavirus.

Kudos to Cheryl Wetzstein, the author of the *Washington Times* article: she must have actually opened the study and not just the press releases. I found the basis of her headline right in Tables 1 and 2. Ninety-two percent of currently married males and 94% of currently married females had just one sexual partner in the last year. You can interpret this to say mean that marriage is a public health measure because it reduces the number of sex partners people have. Partner reduction has to be part of any sensible program to control the spread of sexually transmitted diseases.

What interests me about this study is the competing definitions of homosexuality. It is difficult to pin down the commonly-held belief that 10% of the population is gay. Do we define homosexuality as attraction to persons of the same sex, or as same sex behaviors? Do we define a person as gay because the person defines themselves as gay? This study asked participants all these questions, and finds the same ambiguities as previous studies.

If we ask men how they describe their own sexual orientation, 90% describe themselves as heterosexual, 2.3% as homosexual, 1.8% as bisexual, with the remainder describing themselves as "something else" or not reporting. Do these numbers mean 2.3% are gay, or that only 90% are straight, with all others either gay or lying? We get a slightly different picture if we look at how people describe their sexual attraction. Of those who describe themselves as being attracted "only to the opposite sex," only 94% describe themselves as heterosexual, with the largest portion of the remainder, 3.4% describing themselves as "something else."

Behavior tells a still different picture. Six percent of men and 11% of women report ever having had any sexual contact with a same sex partner in their lifetime. However, in Table 17, we learn that only 2.9% of men have had any same sex partners in the last 12 months, while only 1.6% had exclusively same sex partners in the last 12 months. So who counts as gay?

The proper definition of gay depends on the question we are asking. The epidemiologists favor behavioral definitions, while psychologists look at sexual attraction. Political activists want to know how people define themselves. These are each legitimate questions, which generate different answers and different interpretations of what is important in the data.

Meanwhile, on the Left Coast the *LA Times* tells us what it found significant in the report. "Study finds big rise in female gay sex." I rest my case.

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<http://www.townhall.com/columnists/GuestColumns/printMorse20050926.shtml>

So, how do you define "gay?"

Lie, cheat and steal: high school ethics surveyed: 30 percent of students have stolen from a store; 64 percent have cheated

<http://www.msnbc.msn.com/id/27983915/?GT1=43001>

updated 12:39 p.m. MT, Sun., Nov. 30, 2008

NEW YORK - In the past year, 30 percent of U.S. high school students have stolen from a store and 64 percent have cheated on a test, according to a new, large-scale survey suggesting that Americans are too apathetic about ethical standards.

Educators reacting to the findings questioned any suggestion that today's young people are less honest than previous generations, but several agreed that intensified pressures are prompting many students to cut corners.

"The competition is greater, the pressures on kids have increased dramatically," said Mel Riddle of the National Association of Secondary School Principals. "They have opportunities their predecessors didn't have (to cheat). The temptation is greater."

The Josephson Institute, a Los Angeles-based ethics institute, surveyed 29,760 students at 100 randomly selected high schools nationwide, both public and private. All students in the selected schools were given the survey in class; their anonymity was assured.

Most dismayed about theft findings

Michael Josephson, the institute's founder and president, said he was most dismayed by the findings about theft. The survey found that 35 percent of boys and 26 percent of girls — 30 percent overall — acknowledged stealing from a store within the past year. One-fifth said they stole something from a friend; 23 percent said they stole something from a parent or other relative.

"What is the social cost of that — not to mention the implication for the next generation of mortgage brokers?" Josephson remarked in an interview. "In a society drenched with cynicism, young people can look at it and say 'Why shouldn't we? Everyone else does it.'"

Other findings from the survey:

- Cheating in school is rampant and getting worse. Sixty-four percent of students cheated on a test in the past year and 38 percent did so two or more times, up from 60 percent and 35 percent in a 2006 survey.
- Thirty-six percent said they used the Internet to plagiarize an assignment, up from 33 percent in 2004.
- Forty-two percent said they sometimes lie to save money — 49 percent of the boys and 36 percent of the girls.

Despite such responses, 93 percent of the students said they were satisfied with their personal ethics and character, and 77 percent affirmed that "when it comes to doing what is right, I am better than most people I know."

Nijmie Dzurinko, executive director of the Philadelphia Student Union, said the findings were not at all reflective of the inner-city students she works with as an advocate for better curriculum and school funding.

"A lot of people like to blame society's problems on young people, without recognizing that young people aren't making the decisions about what's happening in society," said Dzurinko, 32. "They're very easy to scapegoat."

Uptick in sharing homework at one school

Peter Anderson, principal of Andover High School in Andover, Mass., said he and his colleagues had detected very little cheating on tests or Internet-based plagiarism. He has, however, noticed an uptick in students sharing homework in unauthorized ways.

"This generation is leading incredibly busy lives – involved in athletics, clubs, so many with part-time jobs, and – for seniors – an incredibly demanding and anxiety-producing college search," he offered as an explanation.

Encouraging kids to do right thing

Riddle, who for four decades was a high school teacher and principal in northern Virginia, agreed that more pressure could lead to more cheating, yet spoke in defense of today's students.

"I would take these students over other generations," he said. "I found them to be more responsive, more rewarding to work with, more appreciative of support that adults give them.

"We have to create situations where it's easy for kids to do the right things," he added. "We need to create classrooms where learning takes on more importance than having the right answer."



How Good is the Evidence?



Thin Mints Are Favorite Girl Scout Cookie

HOUSTON (Reuters) - No need for a recount when it comes to Girl Scout cookies: *Thin Mints* are the nation's favorite by an overwhelming margin.

Thirty eight percent of Americans prefer *the Thin Mint*, originally introduced in 1951 as the *Chocolate Mint*, according to survey results published on Wednesday by Texas-based market research firm MindSearch Inc.

Runner-up in the poll of more than 2,500 consumers were *Caramel Delites*, also known as *Somoas*, preferred by 18 percent of the nation's cookie munchers.

Peanut Butter Sandwiches (*Do-si-Dos*) and Peanut Butter Patties (*Tagalongs*) are favored by 13 percent and 12 percent of Americans respectively.

Sales of Girl Scout cookies are a fund-raising tradition that dates back to 1917.

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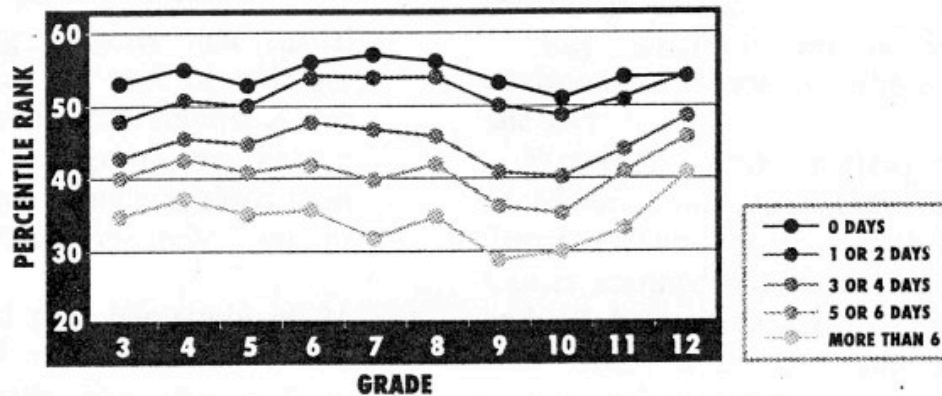
http://reuters.com/news_article.jhtml?type=humannews&StoryID=617744#

The article below appeared in an October, 1998 publication of the Arizona Department of Education that promoted a controversial new statewide "AIMS" test of student performance.

School Attendance Critical To Academic Success

What if you learned there was something you could do that would dramatically improve your child's academic achievement **this year**? One surefire way is to be certain that your child is at school every day—on time! On the 1998 Stanford 9 test, students were asked how many days of school they missed during the previous month. The test results (see chart) showed a significant correlation between attendance and achievement. Unless your child is ill, s/he needs to be at school every day.

HOW MANY DAYS OF SCHOOL DID YOU MISS LAST MONTH?



What's wrong with the Arizona Department of Education's claim that better school attendance will mean higher student achievement?

(Think "Rival Causes")

Sex cures the common cold?

By: Jessie Whitfield

Posted: 8/14/08

According to psychologists at Wilkes University in Pennsylvania, sex cures the common cold. Forget week-long bouts of runny noses, sore throats and achy muscles and say hello to the opposite sex. Engaging in intercourse once or twice a week can boost your immune system, says Dr. Carl Chametski, one of the study's scientists, but the question is how?

Chametski and his team of scientists asked 111 Wilkes undergraduate students aged 16 to 23 how often they had sex during the previous month while evaluating their immune system. In order to tell which students' bodies fended off germs more efficiently, the scientists measured the levels of Immunoglobulin A (IgA), an antigen found in saliva and mucosal linings that plays an essential part in assisting the destruction of bacteria in a person's body who is sick with the cold or flu. Their research showed the students who had sex once or twice a week had a 30 percent rise in their IgA levels, students who had sex less than once a week had a lower increase in IgA levels and students who had very frequent sex, as much as three times a week or more, had the lowest IgA levels.

Clifford Lowell, an immunologist at the University of California in San Francisco, suggested to BBC News, "Sexually active people may be exposed to many more infectious agents than sexually non-active people. The immune system would respond to these foreign antigens by producing and releasing more IgA. The reasons why more sexually active people did not experience a rise in IgA are less clear."

Chametski believes the reason to be clearer than Lowell and says, "The people in the very-frequent sex group may be in obsessive or poor relationships that are causing them a lot of anxiety. We know that stress and anxiety make IgA go down."

While the study promises hot and steamy hope for the unhealthy, the scientific and medical communities have their doubts and believe that other variables would affect the outcome of the study or that the study is bunk. "(Perhaps) healthy people are more likely to have sex regularly anyway," argues Dr. Douglas Fleming, head of the Royal College of General Practitioners, to BBC News or says Professor Ron Eccles, director of the Common Cold Center, "It is not impossible that sex has an effect on the body's ability to fight off cold, but it would be very difficult to substantiate that claim from this data."

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So, why might this study be “bunk,” as some scientists have said? What else needs to be done to be sure its not bunk? What do you believe? (No wishful thinking.)



The 'serving size' myth

John Stossel

August 17, 2005

On countless food packages, serving sizes have become a confusing joke.

I bought a frozen "personal pizza." That's what it said on the package, in big letters. From the name (and its size-it's not very big), you would think a "personal pizza" is for one person -- say, you. But according to the small print, it can feed both you and some other person: The serving size listed on the label is half a pie.

We took the "personal pizza" downtown to Little Italy in New York City for some expert opinions.

"I don't think you could share this with anybody!" said Francesco of Sal's Pizzeria.

One pizza baker said if he offered one of these little pizzas to his customers, "They'd throw it back in my face!"

Most people we talked to couldn't believe the recommended serving size for the "personal pizza." One young woman said, "My cat could eat that."

Why should we care what sleight-of-hand a company pulls on its label when describing serving sizes? Because people worried about their health need information -- and the information on the label is all based on the serving size. Unless people take their calculators with them when they shop, it's easy to get confused.

Most people would eat one blueberry muffin for breakfast. When the label tells you there are just 215 calories per serving, you'd think it was a reasonably low-cal breakfast. But the label in tiny print on one muffin ABC News bought also said the serving size was one-third of a muffin. If you ate the whole muffin, your light breakfast would be heavier than you expected -- and soon you might be, too: That "215 calorie per serving" muffin is really a 645-calorie bomb.

Most shoppers would probably pick up a Swanson's Hungry-Man turkey potpie at the grocery store and assume it's a single serving. After all, it's supposed to feed a hungry man. Yet the label says there are approximately two servings per pie. (Approximately two? I'm sharing my potpie with an approximate person now?)

So shouldn't there be some sort of standard on serving sizes? Guess what: There is. As usual, a government "solution" has created more problems.

In the early 1990s, our government summoned the food industry and had it test, weigh and measure 139 different types of food. Then, the government determined the amount each of us would customarily eat. So now, food companies have government support if they design labels that list absurd serving sizes. And why would they want to list absurdly small serving sizes?

"It's to make more money and to make people think they're eating healthier than they are," one shopper told me.

Right. If the label said that blueberry muffin had 645 calories, some people might not buy it.

None of the food companies that used the deceptive labels would talk to me about this, which is too bad because I'd love to know how an olive company came up with 1.5 olives as its serving size. A jar of smaller olives, which lists 14 as a serving, seems a lot more honest. Who would ever eat 1.5 olives? The folks we talked to at the mall wouldn't. "What, are you going to throw away half of it?" one woman asked.

If you like pickles and want one serving, you might have to throw away a piece of pickle, too: A jar of Vlasic Polish dill pickle spears lists three-quarters of a spear as the serving size.

People commonly eat three or four pickles as a snack, yet Tim Baker, who owns New York's Guss'Pickles, says that a spear is a quarter of a whole pickle. So if you eat three-quarters of a spear, "you only get three-quarters of a quarter of a pickle."

So carry a calculator, or practice your arithmetic. If you do the math, you can choose your fat and calorie intake based on the facts about real portions.

But as usual, letting the government do the work is a good way to make bad decisions. Did you really think federal regulations were going to make something easier to understand?

Give Me a Break.

©2005 John Stossel, co-anchor of ABC News "20/20."

So, can you conclude from Stossel's commentary that "Nutrition Facts" labels give you accurate information?

Nutrition Facts	
Serving Size 1 bag 7 oz 198g (198 g)	
Amount Per Serving	
Calories 972	Calories from Fat 558
% Daily Value*	
Total Fat 64g	99%
Saturated Fat 16g	80%
Trans Fat	
Cholesterol 0mg	0%
Sodium 1485mg	62%
Total Carbohydrate 105g	35%
Dietary Fiber 9g	35%
Sugars	
Protein 15g	
Vitamin A 9%	Vitamin C 112%
Calcium 10%	Iron 21%
<small>*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.</small>	
© www.NutritionData.com	

Researcher: Abortion Advocates Manipulate Data To Make RU-486 Look Safe

By Bill Fancher and Jenni Parker
April 10, 2006

(AgapePress) - A pro-life activist says while the abortion lobby "plays with numbers," women are dying from the use of the abortion drug RU-486.

According to Randall O'Bannon, a researcher with the National Right to Life Committee (NRLC), the pro-abortion lobby claims more than half a million women have taken RU-486 -- also known as mifepristone -- with only a handful of problems occurring. However, he contends, this claim about the broad-scale use and low incidence of complications "doesn't seem to be true on either side."

Since RU-486 was approved by the Food and Drug Administration in 2000, six women in the U.S. and one in Canada have died after taking the abortifacient, causing some abortion providers to suspend use of this chemical method of causing an abortion. However, many "abortion rights" proponents continue to tout the drug as a relatively safe medication, estimating the number of patient fatalities in mifepristone abortions at about one in 200,000.

But O'Bannon believes pro-abortion advocates are playing with the numbers, first of all in order to exaggerate the number of women actually taking the dangerous drug, and secondly to downplay its harmful effects. "They count these by the doses that are sold to clinics or doctors, not actually the number of women who have taken the pill," he says, "and then they multiply those sales figures by a factor of three because a lot of these people are changing the dose."

Meanwhile, the researcher points out, women who experience complications after taking RU-486 are usually treated in hospital emergency rooms, not by the doctor or clinic that originally gave them the drug. "They may or may not even be able to tell the doctor that they've taken this pill," he says. And generally, when one of these "chemical abortion" patients dies as a result of the complications, he adds, "it never gets reported as being a death due to this whole sort of process here."

In such cases, O'Bannon asserts, deaths that occur as a result of RU-486 may actually get recorded as being due to complications from serious infections or natural miscarriages. In any event, he insists that RU-486 is far more dangerous than the abortion lobby suggests.

"We think that they're overestimating how many women have used it," the NRLC spokesman says, "and they may be grossly underestimating the number of women who have been injured or have died because of this."

O'Bannon is convinced the abortion lobby is being untruthful when it says half a million women have taken RU-486 with only a minimal number of problems reported. The pro-life researcher believes that assertion is a disingenuous claim based on manipulated numbers and that RU-486 is in fact responsible for many more than the seven deaths currently attributed to the drug.

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How good is the evidence?

Is the article fair or biased? If biased, how so?

Many blacks views AIDS as conspiracy to kill them

One-third call disease a germ-warfare product, '90 poll says

Associated Press

SAN DIEGO - A 1990 survey of about 1,000 black church members in five cities found that more than one-third of them believe the AIDS virus was produced in a germ-warfare laboratory and has been used to commit genocide against blacks.

Another third said they were "unsure" whether AIDS was created to kill blacks. That left only one-third who disputed the theory.

The findings held firm even among educated individuals, said Sandra Crouse Quinn, a health educator at the School of Public Health at the University of North Carolina, in Chapel Hill.

Asked to react to the statement "I believe there is some truth in reports that the AIDS virus was produced in a germ-warfare laboratory," 33.9 percent of 983 agreed or strongly agreed. Forty-four percent were unsure. Thirty-five percent of 979 agreed or strongly agreed with the statement "I believe AIDS is a form of genocide against black people." Thirty percent were unsure.

Quinn and Thomas gave a questionnaire to 1,054 church members in black churches in Atlanta; Charlotte,

N.C.; Detroit; Kansas City, Mo.; and Tuscaloosa, Ala. They received slightly fewer than 1,000 valid responses for each question.

Rumors that AIDS was created to kill blacks have circulated in the black community for years, and the belief is endorsed by some black leaders.

The surveyed group was not necessarily a representative sample of America's black population, and the findings, reported this week at the annual meeting of the American Public Health Association, cannot be applied to blacks as a whole. But the researchers were surprised by the prevalence of such beliefs.

"They don't trust our public health data," said Quinn, who is white.

The belief that AIDS is a form of genocide has serious health consequences, Quinn said.

"If they believe AIDS is a form of genocide, they are less likely to get tested, less likely to use condoms and less likely to participate in clinical trials," she said.

Although she has not surveyed whites on the genocide question, Quinn said, "I think most whites would say this sounds bizarre."

The wide disparity in world view

between blacks and whites recalls the racial chasm in the reaction to the O.J. Simpson verdict, she said.

The Rev. Joseph Lowery, president of the Southern Christian Leadership Conference, cited the Tuskegee experiment as grounds for cynicism about government health programs. From 1932 to 1972, the U.S. government withheld treatment from 399 poor black men with syphilis in order to study the consequences.

"It's been documented that the government did use African-Americans as guinea pigs in this experiment," Lowery said.

Quinn's study is based on survey questions that were asked in 1990, and Lowery said he believes AIDS education among blacks since then probably has reduced the percentage of those who believe acquired immune deficiency syndrome is a government conspiracy.

"It might have been true in the 1980s, but there's been too much education about AIDS now for African-Americans to believe that," Lowery said. "They know about dirty needles. They know about unprotected sex."

Arizona Republic 11/3/95

What are the problems with the research reported?

What are the problems with the way this news was reported?

Study: Many Blacks Cite AIDS Conspiracy

Prevention Efforts Hurt, Activists Say

By Darryl Fears

Washington Post Staff Writer

Tuesday, January 25, 2005; Page A02

More than 20 years after the AIDS epidemic arrived in the United States, **a significant proportion of African Americans** embrace the theory that government scientists created the disease to control or wipe out their communities, according to a study released today by Rand Corp. and Oregon State University.

That belief markedly hurts efforts to prevent the spread of the disease among black Americans, the study's authors and activists said. African Americans represent 13 percent of the U.S. population, according to Census Bureau figures, yet they account for 50 percent of new HIV infections in the nation, according to the Centers for Disease Control and Prevention.

Nearly half of the 500 African Americans surveyed said that HIV, the virus that causes AIDS, is man-made. The study, which was supported by the National Institute of Child Health and Human Development, appears in the Feb. 1 edition of the Journal of Acquired Immune Deficiency Syndromes.

More than one-quarter said they believed that AIDS was produced in a government laboratory, and 12 percent believed it was created and spread by the CIA.

A slight majority said they believe that a cure for AIDS is being withheld from the poor. Forty-four percent said people who take the new medicines for HIV are government guinea pigs, and 15 percent said AIDS is a form of genocide against black people.

At the same time, 75 percent said they believe medical and public health agencies are working to stop the spread of AIDS in black communities. But the responses, which varied only slightly by age, gender, education and income level, alarmed the researchers.

"As a researcher knowing that these beliefs were out there, I wasn't as surprised as people I share the study with," said Laura Bogart, a behavioral scientist for the Rand Corp., who co-authored the study with Sheryl Thorburn, associate professor in the College of Health and Human Sciences at Oregon State.

"But the findings are striking, and a wake-up call to the prevention community," Bogart said. "The prevention community has not addressed conspiracy beliefs in the context of prevention. I think that a lot of people involved in prevention may not be from the community where they are trying to prevent HIV."

The findings were also no surprise to Na'im Akbar, a professor of psychology at Florida State University who specializes in African American behavior. "This is not a bunch of crazy people running around saying they're out to get us," Akbar said. The belief "comes from the reality of 300 years of slavery and 100 years of post-slavery exploitation."

Akbar cited the Tuskegee experiment conducted by the federal government between 1932 and 1972. In it, scientists told black men they were being treated for syphilis but actually withheld treatment so they could study the course of the disease.

Today, he said, African Americans are more likely to live in communities near pollution sources, such as freeways and oil refineries, and far from health care centers. "There are a lot of indicators that our lives are not valued," Akbar said.

Phill Wilson, executive director of the Black AIDS Institute in Los Angeles, said past discrimination is no longer an excuse for embracing conspiracies that allow HIV to fester.

"It's a huge barrier to HIV prevention in black communities," Wilson said. "There's an issue around conspiracy theory and urban myths. Thus we have an epidemic raging out of control, and African Americans are being disproportionately impacted in every single sense."

Black women made up 73 percent of new HIV cases among women in 2003, and black men represented 40 percent of new cases, according to the most recent federal figures available.

Among gay men, blacks represented 30 percent of new infections, and adolescents ages 18 to 24 accounted for nearly 80 percent of new HIV cases.

"The whole notion of conspiracy theories and misinformation . . . removes personal responsibility," Wilson said. "If there is this boogeyman, people say, 'Why should I use condoms? Why should I use clean needles?' And if I'm an organization, 'Why should I bother with educating my folks?' The syphilis study was real, but it happened 40 years ago, and holding on to it is killing us."

How good was the research? Random? Representative? Size? What else do you want to know before you accept/reject the statistics?

Medical Advice Collapses Again

'Big' health stories too often the result of jumping to conclusions

Health advice often based on "weak data."

From the Associated Press

Friday April 21 1:14 PM ET

Conflicting Studies Confuse Doctors

By DANIEL Q. HANEY, AP Medical Editor

BOSTON (AP) - This time it is fiber, which contrary to the collective wisdom of the brightest minds in medicine apparently does not ward off colon cancer after all.

The specifics change, but the pattern is the same: Over and over, the conventional medical wisdom collapses under the weight of new evidence.

Remember when salt was evil? When eggs were the soul of dietary wickedness? When estrogen seemed like an iron shield against heart disease?

Now it is pretty clear that salt is not an important cause of high blood pressure. Most people probably can eat an egg for breakfast without triggering a heart attack. And estrogen? No one really knows how that will turn out, but there is doubt about the long-accepted assumption that it keeps the heart working smoothly after menopause.

So how does this happen? Why do health rules fall apart after they are chiseled in stone? And how do they get to be rules in the first place?

Many health professionals say it comes down to the willingness of all involved - the scientists, the news media and the public - to draw firm conclusions from a stew of often poorly conducted, contradictory and incomplete observations.

"One of the problems is that strong recommendations have often been made on very weak data," says Dr. Walter Willett of the Harvard School of Public Health. "It may have been the best guess at the moment. But often the recommendations are repeated so many times

people forget they were rough guesses in the first place and come to think they are hard facts."

This is not to say everything is wrong or likely to be overturned tomorrow. For instance, scientists feel absolutely certain that smoking is bad.

Many are reasonably sure that obesity is harmful over the long haul. And they are comfortable recommending that people avoid saturated fat and eat lots of fruits, vegetables and whole grains, even though the exact benefits of some of these aren't entirely clear.

Willett says one reason for the today-it's-good-for-you, tomorrow-it's-not phenomenon is the well-intended "missionary zeal" of scientists who believe their own work and happily repeat the seemingly solid bottom line without going into the complexity and uncertainty of the whole business.

Another essential player in this process, scientists like to point out, is the news media.

“You get the two-sentence synopsis that turns a complicated issue into a black or white, a yes or no,” says Lynn L. Moore, an epidemiologist at Boston University School of Medicine. “That’s not a great service.”

Dr. Thomas Pearson of the University of Rochester notes that some scientists seem bent on encouraging the boldest headlines for their research, and get plenty of help from the reporters who interview them.

“The probing question is, ‘What does this mean?’ Reporters don’t want the usual blah-blah answer, which is, ‘We really need more research,’” Pearson says. “Between science and the press, we have confused a lot of people.”

The fact is, science is a messy process. No single study, no matter how large or careful, is likely to settle an important health question.

Sorting out the influence of genes, food, pollutants, living habits and all the rest requires drawing together information from many different scientific approaches. These include experiments in lab dishes, tests on inbred rats, observations of large groups of people and human experiments.

Data from all of these kinds of science went into the rise and fall of the idea that fiber prevents colon cancer.

The theory began in the 1970s. Scientists noticed that poor people in rural Africa get much less colon cancer than do better-off Westerners. Of course, the differences between these two populations are too numerous to count, but an obvious one was the Africans’ higher consumption of fiber.

Over time, many lines of evidence seemed to support the theory. For instance, it was shown that people who immigrate to places where colon cancer is common take on a higher risk as they adopt the eating habits of their new home. In the lab, experiments showed that animals fed cancer-causing toxins seem to be protected by high-fiber diets.



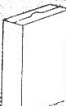
Furthermore, the idea made sense. Fiber makes the stools bulkier and perhaps more likely to dilute cancer-causing substances. Fiber also makes these bad things flow more quickly through the digestive system.

The data seemed convincing enough for health agencies to recommend high-fiber foods as one way of preventing colon cancer, the second-leading cancer killer, even though the evidence was conflicting at best.

Finally, two large federally financed studies put the theory to the test by putting people on low-fat, high-fiber diets. The meticulously run experiments found no evidence this lowers the risk of polyps, which are the first stage of colon cancer.

An apple a day?

Conventional medical wisdom continues to change with new evidence proving the contrary. Here is a look at the revisionist history of some food items.

Item	Out with the old in with the new
Eggs 	Limit consumption to three or four per week.	An egg or two a day is probably safe for most
Salt 	Everyone should keep salt use to a minimum.	Only the 10 percent of people with high blood pressure that is aggravated by salt needs to worry about salt intake.
Fiber 	A high-fiber diet reduces the risk of colon cancer.	May still have health benefits, but eliminating colon cancer probably isn’t one of them.