

## **Auto Accidents, AIDS, Contraception and the Pope**

Suppose you make cars safer by requiring seat belts, collapsible steering columns, and other changes that make it less likely that an auto accident will kill the car's occupants. The obvious conclusion is that the highway death rate will go down.

Sam Peltzman, in a classic [article](#), pointed out that there was no good reason to expect that to happen. How likely an accident is to happen depends decisions made by the driver, such as how fast to drive, how much attention to pay to driving and how much to conversations with your passengers or listening to the radio, whether to drive home or take a cab after drinking a little too much. Drivers are more willing to risk accidents the less likely accidents are to kill them.

Making cars safer lowers the cost of dangerous driving, so results in fewer deaths per accident but more accidents; there is no theoretical basis to predict whether the net effect will be fewer deaths or more. Peltzman offered statistical evidence that, in the particular case he was looking at, a collection of safety requirements imposed in the 1960's, the two effects roughly cancelled. Death rates per accident went down, the accident rate went up, and the annual death rate was about what it would have been without the changes.

An economist tells the following story:

He was in a car being driven by a student; she asked him to put his seatbelt on. He asked her why. She responded: "To make you safer."

"If that is the reason," he said, "shouldn't you take yours off?"

Just as with auto safety and auto accidents, making sex safer by distributing condoms has two effects working in opposite directions. It makes the chance that a given act of sex will result in AIDS transmission lower. But, by lowering that risk, it reduces the incentive to avoid sex entirely, to avoid sexual acts such as anal intercourse that are particularly likely to transmit AIDS, to avoid sex with people likely to give you AIDS, such as prostitutes. On theoretical grounds we have no way of knowing whether the net effect will be more AIDS or less.

There is a further reason to expect making sex safer to result in more sex, one that does not apply to auto accidents. Condoms not only protect against AIDS, they also protect against pregnancy. Even if AIDS did not exist, even if no sexually transmitted disease existed, we would expect making condoms more easily available to increase the amount of sex happening.

Careful condom use almost totally eliminates AIDS transmission. So the argument requires either that people are careless in using condoms, that the condoms sometimes break, or that the availability of condoms increases both protected and unprotected sex.

Pope Benedict, on a trip through Africa in 2009, [commented](#) that condoms were not the answer to the continent's AIDS problem and might make it worse, that the solution should be the encouragement of chastity and marital fidelity. A plausible defense of his position is that the availability of condoms encourages more casual sex, much of which will be unprotected. Edward Green, a senior research scientist at the Harvard School of Public Health, published an [article](#) reporting that several studies "found no evidence of condoms working as a primary HIV-prevention measure in Africa." He mentions risk compensation, the Peltzman effect, then writes:

Another factor is that people seldom use condoms in steady relationships because doing so would imply a lack of trust. (And if condom use rates go up, it's possible we are seeing an increase of casual or commercial sex.) However, it's those ongoing relationships that drive Africa's worst epidemics. In these, most HIV infections are found in general populations, not in high-risk groups such as sex workers, gay men or persons who inject drugs. And in significant proportions of African populations, people have two or more regular sex partners who overlap in time. In Botswana, which has one of the world's highest HIV rates, 43 percent of men and 17 percent of women surveyed had two or more regular sex partners in the previous year.

These ongoing multiple concurrent sex partnerships resemble a giant, invisible web of relationships through which HIV/AIDS spreads. A study in Malawi showed that even though the average number of sexual partners was only slightly over two, fully two-thirds of this population was interconnected through such networks of overlapping, ongoing relationships.

So what has worked in Africa? Strategies that break up these multiple and concurrent sexual networks — or, in plain language, faithful mutual monogamy or at least reduction in numbers of partners, especially concurrent ones. "Closed" or faithful polygamy can work as well.

### **The Rhythm Method and Population Growth Rates**

Catholic doctrine permits the use of the rhythm method, avoiding intercourse during the woman's fertile period, but regards all other forms of contraception as sinful. Critics argue that adhering to that rule results in rapid population growth in Catholic countries, which they view as a major cause of poverty. In evaluating that argument, it is important to recognize that how useful a form of contraception is depends on what you are using it for. Contraception intended for family planning, to hold down the number of children to the number a married couple want to produce, does not need to be as reliable as contraception intended to permit an unmarried woman to have regular intercourse with no significant risk of pregnancy.

As best I could tell by a little online research, there are about four days during a woman's cycle when intercourse has about one chance in four of leading to pregnancy, with a much lower chance on a few more days. Imagine that a married couple is having intercourse twice a week, with no attempt to avoid the wife's fertile period. That should, on average, produce a pregnancy about every four months, hence reproduction at almost the biological maximum.

Suppose they are Catholics trying to hold down the number of children they produce by avoiding intercourse during the wife's fertile period. They do not do a perfect job of calculating the fertile period and keeping track of it, so one month a year they end up having intercourse during it. The result is one pregnancy about every four years. A woman cannot get pregnant when she is already pregnant and fertility is substantially reduced while she is nursing an infant, which reduces it to about one pregnancy every five years. About 15-20% of pregnancies end in miscarriage, so that makes it about one child every six years.

Fertility starts to drop in the early thirties, declines faster in the late thirties. Since this is a back of the envelope calculation, I will assume that a woman marries at twenty and becomes infertile at forty. One child every six years for twenty years produces, on average, three and a third children.

I am considering the situation in a relatively poor society, so about a third of children will die before they reach reproductive age. We are now down to each couple producing just over two adult children, hence a population growing very slowly—well below one percent a year.

I have left out a variety of complications. Some births produce twins, pushing the number up a little. Some husbands or wives are infertile and some women never marry or marry late, pushing it down a good deal. But the bottom line seems to be that, while other forms of contraception make it easier to control the timing of births, the rhythm method is adequate to give married couples who want to have children a reasonably effective way of controlling how many they have.

Which leads me to suspect that neither side of the controversy over contraception is being entirely honest about its objectives. The Catholic church defends its position on doctrinal grounds, but it can be interpreted, perhaps more plausibly, as social engineering. Limiting contraception to unreliable methods—rhythm, which the church approves of, and *interruptus*, which it has no way of preventing—makes casual sex riskier without imposing large burdens on marital sex, making the former less attractive as a substitute for the latter. Critics of the church's position claim that their concern is with overpopulation and poverty, but support contraceptive technologies that enable, arguably have created, the modern pattern of sex largely outside of long-term relationships.

This leads to another question — why have birth rates in at least some poor Catholic countries been much higher than my calculations suggest? One possible answer is that most using the rhythm method are doing it incompetently, either through careless calculation or inadequate willpower. Another, and I think more plausible, answer, is that most couples in such societies chose to have large families.

That fits with my view of a similar issue in a different context. Back when contraception and abortion in the U.S. faced significant legal barriers, the most prominent argument for legalizing them was to prevent "unwanted children." The implicit assumption was that most births to unmarried women were unintended, would not have occurred if the women had access to adequate contraception or, if that failed, legal abortion. As someone put it, "mistakes cause people."

If that assumption was correct, legalized abortion and the widespread availability of contraception should have led to a sharp drop in the non-marital birthrate. What actually happened was the precise opposite. In 1965, when *Griswold v. Connecticut* established a constitutional right to access to contraception (for married couples, but a case a few years later extended it to the unmarried), the rate of births to unmarried women in the U.S. was below 8%. It is currently about 40%.

The obvious conclusion is that births to unmarried mothers, for the most part, are not and were not unwanted. That explains why they did not fall. A possible explanation of why they instead rose can be found in an old [article](#) by Akerlof, Yellen and Katz or, in a less elaborate mathematical form, in [Chapter 13](#) of my *Law's Order* (search for "Akerlof").

On general principles, of course, I think contraception should be legal. On the question of whether improved contraception has had, on net, good or bad effects I am agnostic; I can see legitimate arguments in both directions. My point is not to support either side of that question but only to point out reasons to suspect that neither side of the controversy over contraception is being entirely honest about its motives.