

 Question: How many Americans die each year from gun use?

 a)
 13,000
 b)
 23,000
 c)
 33,000
 d)
 43,000
 e)
 53,000
 f)
 63,000

Book Review: I Didn't Know, I Didn't Know – Avoidable Deaths and Harm Due to Medical Negligence

Aubrey Milunsky, MD, D.Sc

I received an email from the author suggesting that I would find his book interesting and relevant to my purpose of improving patient safety.

Indeed, I did. Dr. Milunsky, a world-famous geneticist, sports a remarkable career, including the founding 35 years ago of the Center for Human Genetics, the writing or editing of 25 books, and delivery of invited lectures all over the world.

In general, his book focuses on diagnostic errors, errors of omission, and errors of communication, all centered on errors relevant to genetic factors.

He does not pull punches when it comes to criticism of his physician colleagues. He notes that caps on payments to victims of medical negligence have "had the effect of further punishing the injured and families of the dead, doing nothing to prevent medical negligence." He notes that more stringent accountability for medical errors be considered. Delivery of substandard care if that killed 2 or more patients, should be grounds for license revocation. CEOs of hospital systems where root cause points to their negligence should be fired. He proposes reforms to medical liability that make sense to me. He is a champion of improved continuing education for physicians, something that he knows will disgruntle his colleagues.

I DIDN'T KNOW, I DIDN'T KNOW I DIDN'T KNOW

Once the landscape of medical harm has been surveyed, Dr. Milunsky gives the reader a detailed tour of case studies where mistakes were made that led to harm and shortened lives. These take the form of (1) Telling the story, (2) Pertinent medical facts, (3) Questions, and (4) Commentary. He presents 47 case studies that are intended to give insight to physicians (mostly) on how being

unaware of what you don't know, that you should know, contributes to patient harm.

In the end, he speaks to the partnership between patients and clinicians. Deaths may happen from the simplest of omissions (I know this personally). Specialists must communicate better with each other and with their patients – for example, never rely on a fax. He asserts that there are over 7,000 rare genetic disorders and these affect about one in 12 people. He

points to the "duty to warn," which is another failure I have personally experienced. He suggests that institutional greed is a serious problem. He posits that the carnage must end. He has made many suggestions to that end, but in my opinion the sick-care system is not going to change much until there is a revolution – by caregivers and patients - united in the cause of patient safety. Interestingly, he never mentions decision aids as a possible solution to "not knowing."

This book should be considered only by serious readers determined to go deeply into the genesis of medical errors. For such readers, I give this 5 stars. Amazon paperback, about \$25.

#### Social Determinants of Health

Houston, where I live, is a medical city. A vast amount of money is exchanged here and across our nation as caregivers serve those who are sick.

The latest devices, drugs, and treatments are available. Yet our life expectancy has declined the last 2 years. What gives? **We are failing as a country to address the social determinants of health**. While our sick-care system appears robust – at least it makes a lot of money – our health care lags because we fail to look upstream to the causes of bad health. This past month the American College of Physicians (ACP) created a <u>position paper</u> on social determinants of health. Their approach is to improve integration of social determinants into

the health-care system. The paper defines social determinants as "the conditions in which people are born, grow, live, work, and age." This includes the wider determinants that shape daily life. My selection of some of the expressed views are as follows:

- Implement policies that reduce socioeconomic disparities
- Integrate socioeconomic determinants into medical education
- Improve funding of social agencies serving the disadvantaged
- Use electronic health records to improve population health

An <u>editorial</u> on the topic of social determinants of health described the bleak state in which our country finds itself compared to other wealthy nations. Since 1980, the richest 1% of Americans have doubled their share of income from 11 to 20%, while the poorest 40% have seen their inflation-adjusted incomes decrease in the same period. In 2016 the wealthiest 1 % owned 39% of assets, whereas the poorest 90% owned 23% of the personal assets. On average, black folks had 1/10<sup>th</sup> the wealth of white folks. The editorialists rightly note that the position paper from the ACP fails to address the impact of medical bills on those with few assets.

An important observation is that an intrinsic effect of capitalism is that the rich get richer and the poor get poorer. Since money buys power in the U.S., the voices of the poor are growing less heard.

> There must be strong, explicit countermeasures to this tendency of capitalism, but those countermeasures are eroding. The editorialists slam the new tax law, noting that it gives \$193,000 to the richest 0.1% and \$60 to the poorest 20%. The editorialists call for physicians to become involved, speaking selflessly on behalf of their patients.

This call to physicians clearly extends to all of us that enjoy economic security. One way is to serve the poor at the

personal level. This can be highly satisfying, although sometimes frustrating. However, the greatest good will come from those up-stream changes that address the genuine socioeconomic needs of the poor. Here I am talking about creating opportunity, not more handouts.

## Health Changes in the U.S. – 1990 to 2016

In a painfully massive study of determinants of U.S. health, a research team called "Burden of Disease Collaborators" amassed enough information to choke even the most dedicated statistician. Thankfully, one can use the abstract to glean a morsel of insight. The good news is that the annual death rate per 100,000 people has declined from 740 to 580 from 1990 to 2016. By state in 2016, the highest life expectancy was 81 years (Hawaii) and the lowest was 75 years (Mississippi). The investigators reported disability-adjusted life years (DALY). These are years spent living in disability plus years lost due to death compared to the normative expected value. It was no surprise that the major factors contributing to DALYs were as follows: tobacco use, obesity, and alcohol and drugs.

What I know from other sources is that tobacco use has declined since 1990, but obesity has increased. Perhaps the former has contributed to the decline in death rates. Unfortunately, no one has attempted to factor in the DALYs associated with preventable adverse medical events.

#### Driving on the "High" Road

I just returned from a trip to Ouito, Ecuador. To escape from that city is to drive on high-altitude roads. Here I am writing about driving while high on cannabis. It is the most detected drug in use by drivers when a crash happens. To quote an article on this subject "cannabis impairs the motor performance (eg, reaction time, tracking) and cognitive function (eg, attention, decision making, impulse control, memory) needed for safe driving." The effects are most intense in the hour after use. Adverse effects are enhanced by a low dose of alcohol below the legal limit for intoxication. It seems that those who use cannabis refuse to acknowledge that it may cause impairment. The author of this report calls on evidence-based policy and legislation to counteract the harm due to cannabis-induced impairment while driving.

## The Best Care in the World?

An MD writes of the long and troubling journey of his brother in the U.S. sick-care system. His brother was smart, graduating from a law school and holding a highly responsible job by age 30. Trouble was, Kenneth had mania and got injured in an automobile accident. In the final 18 months of his life, Kenneth was an inpatient in 19 institutions. They in turn missed the fact that he had an ICD, had physical pain from his injuries, was quadriplegic, had and two cancers. He was typically overmedicated. Near the end, after overuse of antibiotics, he got a C. diff. infection. The writer laments the "balkanization" of Kenneth's healthcare, which is reflective of a system that seems stuck in this mode.

There were plenty of mistakes made. In order to leave some money to his heirs, a law suit was considered on his behalf. Despite the obvious merits of the case, no lawyer would take it because of compensation limits in the state where he was repeatedly harmed.

At his funeral the writer was acknowledged for ensuring that his brother got the best care in the world. In writing the article, that brother wanted to set the record straight. It's obvious to the reader that Kenneth's care was disastrous. His was a case complicated by mental illness, chronic disease, quadriplegia, and acute injuries. He seemed to be in a compartmentalized, unaccountable system that never looked at him as a whole human being until he finally came home – to die.

#### The Scoop on E-Cigarettes

E-cigarettes have been around for about a decade. These devices deliver nicotine to the person "vaping" but not the toxic mix delivered by conventional cigarettes. The National Academy of Science, Engineering and Medicine just issued a report summarizing the database on the wisdom of using E-cigarettes. A <u>clinician summarized</u> their findings. If one must smoke, E-cigarettes are safer than cigarettes. The degree of improved safety depends on the device used for vaping. E-cigarettes have not been subjected to regulatory scrutiny, and their long-term health effects are unknown. Second-hand exposure is less with E-cigarettes than conventional cigarettes. There is a rare risk that E-cigarettes may explode.

A downside of E-cigarettes is that they may lead youth who never smoked to try these, and then eventually become smokers of regular cigarettes. Using some public-health modeling, the committee concluded that E-cigarettes save lives. The clinicianauthor tells his patients who smoke and want to quit to try FDA approved remedies to quit before trying E-cigarettes. He also advises against vaping in doors. I might point out that a quit-smoking aid called Chantix, although FDA approved, has some serious side effects.

# Health-System Expansions May Degrade Patient Safety

Three experts, having surveyed clinicians at Harvard-affiliated medical institutions, concluded that there are three areas of <u>risk to patient safety</u> that often go un mitigated during hospital-system expansion. These include a new population of patients, unfamiliar infrastructure, and new clinical settings. For example, a new population might introduce the need to recognize drug withdrawal symptoms or deal with non-English-speaking patients. Unfamiliar infrastructure may include a different medical record system or new means of ordering prescriptions. A new clinical setting may present problems with unfamiliar emergency support or different ways of delivering the right care.

The message here for patients is to be supportive of providers when you find yourself in a new health-care setting. Also, be extra vigilant to detect any mistakes that may pose a risk to your safe care. Change always brings a few lumps. The authors point out that the motivation for expansion is often to improve financial factors and *not* to improve clinical care.

### Opioid Crisis Management in Canada

In my opinion the U.S. political leadership is loath to learning anything from successes in other countries. This ignorance is especially acute in the way guns should be managed, but it goes further than that. There is no doubt that we are in the midst of an opioid epidemic in the U.S. One might ask, "Can we learn anything from the way our neighbors to the north have managed their identical crisis?" There are <u>lessons</u>, but of course, there are no "magic bullets" to slay the epidemic.

The Canadian government has made naloxone, an opioid reversal drug, available without prescription. In British Columbia naloxone is free to low and middle income people. Canadians who buy their drugs on the street can inject them under the supervision of medical personnel. Many of the opioid deaths are due to lacing of street drugs with fentanyl, so in some locations users can ask for testing to see if fentanyl is present before using a street drug.

In both countries there is a failure to educate physicians on how to treat opioid addiction. Furthermore, criminalization of users is high in both countries. Inadequate post-release from jail is common, so recidivism is high. The author calls for "bold action." Don't hold your breath south of the U.S. – Canadian border. Bold actions these days are restricted to those that benefit the rich. In my opinion, we have lost our compass.

## Gun Deaths in the U.S.

Santa Fe, Texas is about 20 miles from where I live, and it is where 10 people were murdered by a 17-year-old male with a shot gun and .38 caliber hand gun 2 weeks ago. Two JDs writing in the *JAMA* expressed <u>their opinion</u> about needed changes. First the facts: Citizens in the U.S. own 48% of private handguns in the world, our death rate is 25 times higher than the average of other high income countries, and more than half the gun deaths in the U.S. are suicides. The lawyers propose the following six steps to reduce gun deaths:

- Dangerous people cannot have guns
- Enforce existing laws and make background checks universal
- Require safe storage
- Ban assault weapons, large magazines, and armor-piercing ammo
- Restrict right-to-carry
- Create better crime detection, especially trafficking in weapons



In my opinion, these measures will make a slight difference. There must be widespread recall of military-style assault weapons, and no one may own more than 5 guns. There also must be criminal penalties for someone who failed to safely store a gun if that gun was used to harm someone. Beyond the law, we must improve mental health access.

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