

The best health care model: Can we learn from the Danish experience?

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Abstract: Socialized medicine has, despite the best of intentions, severely failed to keep the population healthy. Half the population in Denmark and other countries that use socialized medicine is chronically ill, despite the abundance of pharmaceutical drugs. The reason for this failure seems to be that socialized medicine concentrates power, enabling industrial lobbyism, and empowering the pharmaceutical industry. Socialized medicine therefore turns medicine into industrial biomedicine, and doctors into pushers of pharmaceutical drugs. Non-drug alternatives, such as massage, acupuncture, and body psychotherapy, which may induce salutogenesis and help cure some patients, are made less likely for physicians to understand and provide for their patients. A solution to the current crisis of medicine is to empower citizens to choose freely how they will use health insurance money. We may need a public health insurance program, but only together with strong laws that ensure that citizens are completely free to use health insurance money according to the person's own philosophy of life and understanding of health. Commercials for pharmaceuticals must be strongly regulated and must only inform consumers based on evidence. An independent institute for evidence-based medicine is needed to compare all existing treatments to ensure that the effect of drug- and non-drug treatments is documented in the same way, so it is possible to compare the effect of both. Global quality of life must always be the endpoint, and chronic patients must be used as their own control to ensure real progress in the management of illness and promotion of health.

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INTRODUCTION

Every citizen of the United States (US) seems to be aware that the US health care system is not functioning well (1). Countless critiques have reached the press, and a systematic investigation of the negative effects of this health system has made researchers conclude that those in poverty are not being sufficiently helped. Almost a million US citizens are killed every year, with many more harmed, due to hundred of millions of unnecessary, unscientific, or incorrectly used health interventions. (2,3). As noted by Null et al: "It's a failed system in need of immediate attention." (2) As noted by Time reporter Park: "Despite advances in medicine, Americans are less healthy than we used to be, and the next generation may be even worse off." (1)

Often the suggested solution to such conclusions has been to have socialized medicine become the basis of the US health care system. Society seems infatuated

with the idea of every citizen having free access to all medical treatments when necessary. This idea is as beautiful as the whole idea of communism originally presented by Karl Marx: One must give to society that entirely one is able to, and receive in return only what one needs. In Denmark, socialized medicine has existed for 40 years. Most Danes are happy with their public health care system, as they find to be it fair, decent, and even believe it to be evidence-based, even though most cures are never scientifically tested. Patients at public hospitals in Denmark are treated equally regardless of being a poor worker or a famous movie star. Of course the richest people will often go to a private hospital or clinic, though, even in Denmark. The doctors working in the private hospitals often also work at the public hospital as the physicians in charge. So we like to think that the standard of the public system is not much worse than in the private hospitals.

So for many people, this model of socialized medicine appears to work well. With closer observation, however, it is not that simple, for the outcome of the socialized public health care system when measured in terms of overall public health, is not significantly better than the outcome of the private system in the US. Actually it might be a lot worse, as 20% of all residents in Denmark have a serious, chronic, mental illness, and 30% have a serious, chronic physical disease.(4) Research has noted that 25% of the Danish population suffered from chronic pain (5), and about half the adult population is unable to study or work normally. The tax burden for an average citizen working in the private sector has therefore risen to about 70% of the last earned money for over one million Danes, because of the need to pay for the 50% of citizens not working and the 20% of all citizens working in the public sector—mostly the social and health sectors. In Denmark, the debate centers on what went so terribly wrong with the public health service, a system that turned half the population into chronically ill patients.

UNITED STATES AND EUROPEAN HEALTH CARE SYSTEMS

In the US, 14% of the Gross National Product is spent on health care, reaching \$1.6 trillion in 2003; this fraction is the same in Denmark (5,6). In the US and Denmark, about half the population uses pharmaceutical drugs (6). The number of surgical operations per citizen is about the same in both countries. The number of consultations per capita with biomedical doctors is about the same, and the number of prescriptions per capita is also about the same. Also, the number of errors made by doctors is about the same; however, the medical errors may be higher in Denmark because Danish physicians employed by the state are not as well-trained as US doctors, since these Danish clinicians only work by Danish law 37.5 hours per week. Making matters even worse, the national health seems to deteriorate every year in Denmark, as well as in the US. One can only conclude that society is looking into really serious health problems in the future. Such a comparison of these two systems, the liberal US health care system and the socialized European model health care system, reveals that the problem is not really with the structure or organization of the health system; it is a much more profound problem that concerns the very nature of the medicine that is used.

However, what is essentially wrong with medicine of the early 21st century? The fundamental problem is the way that medicine is researched and developed by

the pharmaceutical industry, and the way that their drugs are promoted and controlled as the best available treatments by this same industry that seeks high profits from its medications (7). This problem has been addressed many times. For example, Jonathan Quick, director of Essential Drugs and Medicines Policy for the World Health Organization (WHO), wrote in a recent WHO Bulletin:

“If clinical trials become a commercial venture in which self-interest overrules public interest and desire overrules science, then the social contract which allows research on human subjects in return for medical advances is broken” (8).

A 2002 report by the US network ABC News concluded that one measurable tie between the pharmaceutical companies and doctors amounts to over \$2 billion a year spent for over 314,000 events that US doctors attend (9). Data on financial involvement showed that in 1981, the drug industry “gave” \$292 million to colleges and universities for research; this funding increased to \$2.1 billion in 1991 (9).

Additionally, an editor of the New England Journal of Medicine, Dr. Marcia Angell, wrote an editorial entitled “*Is academic medicine for sale?*” (10). Angell called for stronger restrictions on pharmaceutical stock ownership and other financial incentives for researchers. She said that growing conflicts of interest are tainting science. The author warned that, “*When the boundaries between industry and academic medicine become as blurred as they are now, the business goals of industry influence the mission of medical schools in multiple ways.*” Angell did not discount the benefits of research but wrote that a Faustian bargain now existed between medical schools and the pharmaceutical industry.

The problem is that medicine has basically turned into business and politics, and objective science has been lost as a result. Even when well-respected scientists have shown that pharmaceutical products are damaging, the pharmaceutical industries use their considerable lobbying power to maintain their product presence in the market. Massive misinformation and strong pro-drug campaigns have led consumers to believe products that are inefficient and even harmful are really useful and needed for improved health. It can be problematic for researchers to show that a product is not evidence-based and therefore not likely to be helpful; for example, it was noted that after Tom Jefferson revealed concerns with the efficacy of the influenza vaccine in several papers in the Lancet, he received death threats. (11).

Another example is seen with that of the German statistician Ulrich Abel, who analyzed data from thousands of cancer studies and concluded that chemotherapy for almost all types of cancers (the epitheloid cancers) only shortened life and destroyed the quality of life. (12) Chemotherapy was not taken off the market as a result of his report; on the contrary Abel's personal character was seriously questioned, and soon after this report, his computer mainframe broke down and the back-up was also lost, with the result that all his data were destroyed. After that, the industry stopped testing chemotherapy against no treatment as controls, but only against the old drugs that Abel has proved to be harmful.

Unfortunately, this is not at all a unique story. In Sweden, a trial at the Swedish High Court forced an anti-ADHD drug company to reveal its research protocols after accusations about the research being paid secretly by the industry. The day after the trial proceedings, all the papers about the protocols burned, and the product stayed on the market and continues to be given to one out of three school boys in Southern Sweden. (13)

A Cochrane meta-analysis showed in 2004 that antidepressant drugs are not better than active placebo (14); the consequence of this study is that these drugs not only have adverse effects but also have no proven beneficial effect except for placebo. Thus, one can ask why are they still on the market and why were over 10% of the population were prescribed these drugs in 2008 in both the US and Denmark? (4) Another recent Cochrane meta-analysis of antipsychotic drugs showed that these drugs did not improve the patient's mental state; only the patient's hallucinatory behavior was improved, most likely, because the patients were pacified and sedated by the drugs (i.e., made passive, obedient, and cooperative, not better mentally). (15) Despite such evidence, however, about 5% of the population in the United States and Denmark are prescribed these drugs.

When reviewing the meta-analysis of the research, the conclusion was that "the drugs do not work" (16), or that they help one in 5-20 (The Number Needed to Treat, or NNT). In Denmark, the NNT has in recent years disappeared from all product information, both the one given to patients and to physicians. This absence can serve only one interest: the interest of the pharmaceutical industry. At the same time, all complementary and alternative medicine (CAM) products (medicines and nutritional supplements) that have not been evidence-based have been banned and removed from the market. This amounts to the majority of CAM

products because little research has been conducted on their effectiveness. No government agency or private research sponsor will pay to document the effects of these alternative options for management of illnesses.

Many practitioners of holistic medicine are now being prosecuted by the national health authorities in Europe for giving non-evidence-based medicine to their patients. It is correct that many of the holistic treatments are not well documented because of lack of interest in funding such research, such as looking at effects of massage therapy for chronic pain. In the US, CAM remains popular with the general public. The amount of money spent on CAM was larger than the amount spent on biomedicine in 1990; in Denmark, however, only 10% of the health budget is used on CAM.

In socialized medicine we have a very large, actually nationwide, highly authoritarian system. The physician's fundamental need of freedom to choose the most appropriate treatment method to help the patient is in many cases repressed as a consequence of this. A few powerful doctors come to define the treatment standard for all diseases in the whole country. Much special knowledge is lost this way, and clinics and hospitals historically accumulated knowledge and competence are often forgotten, because of the authorities insistence on the "Nation's need to modernize health care"—even when the old methods did the job excellently, and the new methods are not yet sufficiently tested.

Socialized medicine provides, on the other hand, a health system that is strongly conservative when it comes to letting go of obsolete and inefficient drugs, when immensely strong, commercial interests support these. It sadly seems that a socialized medicine is much easier manipulated by the pharmaceutical industry, the lobbying made easy by the very small number of super-influential and powerful people you have to get to change attitudes, to have an impact on the decisions of what physician's treatments are available everywhere in the whole country. The top of a single huge pyramid gives very few people to go to for the lobbyists, and everybody knows who they are. In such a model, small players like researchers, therapists, and intellectuals have little to say compared with the powerful players backed up by big money and brutal economic force; the consequence is as we have seen that pharmaceutical agents become the dominant and almost the only model of treatment for the public.

Experience with 40 years of socialized medicine in Denmark has shown that the health of its citizens has not improved. Health does not come from pills but rather from healthy, positive attitudes, awareness with

self-insight, sense of coherence (17,18), quality of life, good relations, and constructive behavior in accordance with this. You cannot place the responsibility for health on society; responsibility must be placed on empowered citizens. Only by empowering citizens to make the choice of what kind of medical treatment they want (i.e., drugs, massage, biomedicine, psychotherapy, or CAM others) can true health emerge and not just profits for the pharmaceutical industry.

The dominance of the industry is well known from their cooperation with large health insurance companies in the US. The pharmaceutical industry contracts with powerful health insurance companies and regulates what drugs and pharmaceutical products physicians can prescribe for their patients. In our view, this situation is not in the best interests for the health of patients, although such contracts are good for the profits of both the pharmaceutical industries and the large insurance companies.

The issue of limiting the management options for physicians is not improved with the socialized medicine model. In this system, the government is extremely sensitive to political pressure from lobbyism, and this pressure determines what medications and other management options are available to physicians, instead of direct control by large insurance companies. This approach becomes even worse for the practicing physician if s/he does not obey the dictums of the government, resulting in loss of medical licensure and other punishments (i.e., fines, prison). This punishment is already in place for physicians in the US who face fines and prison if convicted of not obeying government rules on billing for patient services.

DISCUSSION

In view of these comments, the question remains...what model would curtail or end unhealthy pharmaceutical industry manipulation? We conclude that socialized medicine must be eliminated in its present form, as noted, for example, in Denmark. Health companies should be prevented from dictating treatment options for physicians. The key is to make each citizen responsible for his/her own public health insurance account. A mandate should be established, in which every citizen who can afford to have a public health insurance account is required to have one. Also, one's government should supply a public health insurance account to those citizens who cannot afford one.

When a citizen becomes ill, one or two independent doctors should diagnose the condition, while standard charges and reimbursements should be set for various

treatments. The patient should be empowered to use these monies in any way s/he chooses. For example, do we know for sure that a vacation trip is less healthy or less efficient than use of drugs for patient with depression? Do we know if CAM and massage is better for chronic pain disorder than pain medications and surgery? Let the patient decide, let the patient make choices in his or her treatment, and allow the money for treatment to follow the patient's understanding of health and life. Incorrect and non-documented information advertisements should be banned. It should be illegal for the media to manipulate and misinform the citizens. Studies on CAM and holistic medicine should use chronic patients as their control group and encourage these studies to be acknowledged as accepted, scientific documentation. One should request the use of active placebos and allow public access to all research data. One should request that the global quality of life (e.g., QOL1 or QOL5) (19) is always a control parameter, as this simple measure adds positive and negative effects to any treatment. The public should understand that the pharmaceutical industry has become too powerful, systematically, giving us only the data and results that are in their commercial interest.

Most importantly, drugs should be banned that are shown to be ineffective. This is only possible to do on a national level, due to the political force of wealthy drug companies. If any government would try to ban chemotherapy, despite the use of chemotherapy never being based on evidence (as demonstrated by Abel) (12), the pharmaceutical industry is likely to fill the media with stories about people now dying because of lack of chemotherapy, and large fractions of the population will believe these anecdotal stories.

Regulation of the media is critical. By making it expensive for the media to tell fabricated horror stories about doctors and therapists killing their patients, such regulation will regulate the pervasiveness of this message. Media that abuse their power in this way must be severely punished or banned altogether. The industry that pays for the media to tell these stories or that fabricate these stories must be held responsible for the false information they are purveying. Society needs laws to protect medicine and we need a number of truly independent institutes that analyze cures and treatments for evidence-based outcomes. It is necessary to fight the dark and inhuman side of money, materialism, and ruthless profiteering.

The solution to this dilemma in the US of more money being spent on health care with a reduced healthy state of its citizens is to go beyond socialism

and capitalism and consider them as obsolete poles in the development of a workable health care system. This is important in the search to create a truly intelligent and responsible culture in which a society can support its citizens to stay healthy. Society needs a sustainable world and also a sustainable culture. Either we solve this problem of medicine and health in our cultures, or we will collectively become too sick to take care of our irreplaceable ecosystem and our precious planet. The shift to a better and more awake world will not come by itself. We all need to work for this together.

CONCLUSIONS

Socialized medicine has failed miserably in its intention to keep the population healthy. Public medicine concentrates power and makes lobbying easy; public medicine empowers the pharmaceutical industry and weakens holistic as well as non-industrial medicine. Socialization turns medicine into industrial biomedicine, and we have seen in Denmark how it has made half the population chronically ill. Socialized medicine has become a system that pushes drugs for treatment of illnesses in spite of lack of proof for their benefits and despite the adverse or unspecific negative effects of these drugs. A recent review of the literature showed that non-drug treatments might help half of the chronically ill patients return to health in only one year. (20) Good non-drug treatments that probably could help also the severely ill—e.g., patients with coronary heart disease (21)—are repressed and made illegal, and physicians can even lose their licenses if they do not comply and prescribe drugs.

The solution to the current crisis of the health care system is to empower the citizens. Each person must be able to choose freely how to use his/her money for health care services. As people never expect to get ill, we cannot expect them to make their own savings, so it is wise to have a kind of public health insurance, so that they will have financial resources if they become ill. However, then we also need strong laws that ensure that the citizen can use the health insurance money according to their own individual philosophy of life and understanding of illness and health.

Commercials for drugs must always quote evidence, and independent institutes for evidence-based medicine must control the quality of documentation and compare all existing treatments for each disorder and health problem to ensure that the positive and negative effects of all treatments—both drug-treatments and non-drug treatments—are documented in the same way. Global quality of life and self-rated health must always be

endpoints in documentation so that adverse effects are included in the global effect measures, to avoid the strong bias from what has been called “narrowness of worldview”—that you include only the factors you are interested in observing—that so many of the industrial studies of today suffer severely from to boost profits.

REFERENCES

1. Park A. America's health checkup: The sorry state of American health. *Time* 2008 Dec 1:41-51.
2. Null G, Dean C, Feldman M, Rasio D, Smith D. (2006) Modern healthcare system is leading cause of death. Available at: [www or http://:domgill.googlepages.com/iatrogenicbyGaryNulletal.doc](http://www.googlepages.com/iatrogenicbyGaryNulletal.doc). Accessed 08 Feb 2009.
3. Aspden P, Wolcott J, Bootman JL, Cronenwett LR, eds. Preventing medical errors. Washington, DC: Natl Acad Press, 2007.
4. Kjølner M, Juel K, Kamper-Jørgensen F. [Folkesundhedsrapporten Danmark 2007]. Copenhagen: Statens Inst Folkesundhed, 2007. [Danish]
5. The troubled healthcare system in the US. The society of actuaries: Health benefit systems practice advancement committee. 2003. Available at: <http://www.soa.org/> Accessed 08 Feb 2009.
6. Gunnarsen SJ. Statistical yearbook 2007. Copenhagen: Danmarks Statistik, 2008.
7. Greydanus DE, Hawver J, Patel DR. The role of pharmaceutical influence in education and research: The clinician's response. *Asian J Paediatr Pract* 2006;9(3):5-41.
8. World Health Organization, Press Release Bulletin #9, 2001 Dec 17.
9. Finding independent doctors. ABC News 12 Jun 2002.
10. Angell M. Is academic medicine for sale? *N Engl J Med* 2000;342(20):1516-8.
11. Jefferson T. The UK Cochrane collaboration. Personal communication, 2008.
12. Abel U. Chemotherapy of advanced epithelial cancer—a critical review. *Biomed Pharmacother* 1992;46(10):439-52.
13. Hansen TS. Danmarks Radio, personal communication, 2008.
14. Moncrieff J, Wessely S, Hardy R. Active placebos versus antidepressants for depression. *Cochrane Database Syst Rev* 2004;(1):CD003012.
15. Adams CE, Awad G, Rathbone J, Thornley B. Chlorpromazine versus placebo for schizophrenia. *Cochrane Database Syst Rev* 2007;(2):CD000284.

16. Smith R. The drugs don't work, *BMJ* 2003;327(7428):0-h.
17. Antonovsky A. *Health, stress and coping*. London: Jossey-Bass, 1985.
18. Antonovsky A. *Unravelling the mystery of health. How people manage stress and stay well*. San Francisco: Jossey-Bass, 1987.
19. Lindholt JS, Ventegodt S, Henneberg EW. Development and validation of QoL5 clinical databases. A short, global and generic questionnaire based on an integrated theory of the quality of life. *Eur J Surg* 2002;168:103-7.
20. Ventegodt S, Omar HA, Merrick J. Quality of life as medicine: Interventions that induce salutogenesis. A review of the literature. *Soc Indicator Res*, submitted 2008.
21. Ornish D, Brown SE, Scherwitz LW, Billings JH, Armstrong WT, Ports TA, et al. Can lifestyle changes reverse coronary heart disease? *Lancet* 1990;336(8708):888-91.