O'Connor Competition

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Building an American Health System

First Prize

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§ Code Blue Now (CBN) is the only national, non-partisan grassroots movement for health care reform in the USA. As the result of winning the national competition Dr. Benn was invited to join the Main Board of CBN. The Honorary Board contains some distinguished members such as Booth Gardner, Governor of Washington State, 1985-93 and John Kitzhaber, MD, Governor of Oregon, 1994-2003.

The O'Connor Competition: Building an American Health System

Executive Summary

This report is divided into two sections: 1) analysis of current health system, and 2) suggestions for a new system.

The current problems are due to a system designed to treat acute episodes of disease rather than to prevent or delay the onset of chronic diseases, which consume 80% of health expenditures. Health care is designed to provide disease cures isolated from the non-medical causes of disease, which are primarily poverty due to lack of education and life skills. Although many people believe that fee-for-service, malpractice litigation, high hospital and drug charges, insurance companies' profits, and expensive administration overheads are the causes of the US health systems failure to provide cost-effective equitably distributed care, they are exacerbating factors but not the cause. The principal cause is the failure to have an effective disease prevention, health promotion system designed to operate at the community level, with the patient being trained to be their own self-care expert. By developing a self-care approach to disease prevention/ management it has been shown that health care costs decrease, from reduced patient demand without sacrificing quality of health.

The proposed new system has two separate parts. The first is designed to raise single parent families out of poverty into jobs paying at least twice the federal poverty level, with the potential for increased earnings. One suggested model is based on combining a vocational training with health education in a "village" attached to a nursing home. The "villages" are run by not-for-profit companies, with mothers achieving a Licensed Practical Nurse qualification after two years. The following three years they work in the nursing home to pay for the first two years of food, accommodation and clothing, day care, health care and training. Part of the funding is from existing federal/state grants, such as training, and part from the company. If only 500, out of a total of 17,000 nursing homes, establish "villages" they could train 50,000 single parents with about 150,000 children in a healthy environment. With 5,000 "villages" one-sixth of all US single parent families currently on Medicaid could be lifted out of poverty over a five-year period.

The second proposal is to develop a comprehensive national health care plan to cover the current Medicaid, Medicare, and uninsured populations, using existing public health expenditure levels. By combining capitation plans with community-based disease prevention and patient self-care leading to reduced care from demand management, it should be possible to cover 50% of the population. Current privately insured people would have the choice of purchasing cover with the national plan. In this way the cheaper better national plan would compete in the private sector, but employers and individuals would retain the choice of public or private insurance.

Estimates of cost are provided for developing these concepts further. To test the vocational "villages" in five states over five years requires $14,000,000. To develop a detailed plan for comprehensive cover for 50% of the population, within existing public expenditure levels, will require $1,000,000.

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Introduction

To understand the driving forces behind the U.S. health care system, one must first look deep into the culture of American Society. Americans pride themselves on self-reliance, independence, and the wealth generated by a market economy. The U.S. health care delivery system reflects these values. Stakeholders give high priority to profit making by organizing activities in terms of selling services to individuals or groups. The stakeholders show less concern however, for wider social impacts such as economic cost or equity of distribution of benefits to all social groups. Furthermore, the U.S. has the most expensive and least equitable system of any of the industrialized countries. This is realized when objectively measured in terms of national expenditure on health, health outcomes, and access to care. [1-4]

This paper aims to convey to the reader the following; the extent of inefficiency of our system, the magnitude of change needed to provide all people with affordable care, and how better health care may be attained through definitive methods or directions. I believe the proposals are novel, achievable, and needed to ensure that the "American Dream" includes disease prevention and access to affordable healthcare for everyone.

Organization of the paper

This document is large in scope but limited in size. It is simply not possible to provide the depth of detail I would have liked. Therefore, I have structured the paper into two parts: a) A description of current health system problems with references. b) My proposals to solve these problems.

CURRENT HEALTH SYSTEM'S PROBLEMS

Efficiency of health care expenditure

In 2001 the United States spent 14% of its total Gross Domestic Product (GDP) on health expenditure. A figure that is almost double that of the median industrialized country (8% GDP). [1,2] Furthermore, it is sobering to realize that the U.S. is generally ranked, according to available health outcome measures, in the bottom half of the countries, and its relative ranking has been declining since 1960. [1] However, these facts fail to convey the scope of the problems inherent within the U.S. health care. Such problems are better described as follows:

- In 2002 public expenditure on health consumed 45% of all health expenditure or 6.7% of GDP. [4]
- In 2001, excluding dual enrolments, 24% of the population were covered by Medicaid, SCHIP, and Medicare.[3]
- Therefore approximately 6.7% of GDP was expended on health coverage for only 24% of the population.

The United Kingdom (U.K.) in 2000 expended 7.3% of GDP on health care, of which 81% was public and 19% private coverage. [5] However, every person is entitled to public health coverage so the private insurance is in addition to the public insurance. Therefore the UK spent 5.9% of GDP to provide ALL the population with health cover. If we compare seven major measures of health indicators in 2001, the U.K. had better outcomes than the U.S. In particular, adult male mortality was 32% worse in the US.

It is astounding that the U.K. can spend 5.9% of GDP and provide health coverage for all the population while the U.S. spends 6.7% to cover only 24% of the population and has poorer outcomes. The situation is even worse when we consider that a separate 26% of the U.S. population had no health coverage for all or a substantial part of 2001 and 2002. [6,7] The U.S. system would appear to be grossly inefficient in the use of resources for providing health care.

Causes of inefficiency

Efficiency can be defined as the effect of interventions in relation to the resources they consume. In terms of health care, I will define interventions very broadly into the categories of:

i. disease prevention and health promotion,
ii. social capital,
iii. education to elevate skills to increase income,
iv. education for patient self-care,
v. professional care,
vi. prescription drugs,
vii. administration,
viii. litigation, and
ix. fraud or inappropriate claims.

The order of these items is important, since they start with interventions that have the greatest probability of preventing or managing diseases with the smallest expenditure. As we progress, the interventions become less efficient driving up costs.

As a final topic I will discuss access to health care, since this can be viewed as a summation of the effects of the health system's design on the customers – you and I.

Disease prevention and health promotion

Disease prevention includes a range of activities performed by government, communities, health professionals, and individuals, such as immunization, water fluoridation, and seatbelt use. Health promotion refers to influencing people to choose a healthy lifestyle by refraining from smoking or using illegal drugs, eating a good diet, and being physically active. "Each year in America, smoking, obesity, and diabetes, are associated with almost a million deaths, costing our economy $270 billion." [8] In 2002 this was equivalent to 18% of total national health care expenditure. During the same period the Department of Health and Human Services (HHS) spent $15.4 billion or 3% of their budget on disease prevention and health promotion. [8] In terms of total national health care expenditure this was equivalent to only 1% of expenditure although this does not include any private plan expenditure. In 1997 only about one quarter of employers had health plans that included smoking cessation or other counselling services. [9]

It is interesting to note that during 2000- 01 the financial support for U.S. medical schools was $46.5 billion [10] and dental schools $1.5 billion, [11] totalling $48 billion or approximately 3% of total national health care expenditure. Most doctors, unless working in the small public health sector, are principally providing treatment rather than prevention of disease.

Since 1900, the average U.S. lifespan has increased by more than 30 years. Twenty-five of these added years are attributed to investments in prevention, such as vaccines to

protect children from polio and other infectious diseases, improvements in motor vehicle safety, safer and healthier foods, and clean drinking water have saved lives and prevented disability. [12, 13]

The current emphasis in health care is for using resources for treatment, rather than prevention, even when it has been demonstrated that prevention is a better investment than curing disease. [14] National health expenditures are listed by over 20 separate categories yet there is none for disease prevention. [15] If available the data could be used to evaluate nationally the impact of funds spent on prevention rather than treatment. The need for this is shown by the fact that increased medical expenditures are often associated more with the availability of physicians, beds, and high technology investigations than with improvement in health outcomes. [16] It has been suggested that up to 30% of Medicare expenditure could be saved by avoiding unnecessary care. [17]

In summary, the current system has a very low expenditure on disease prevention and health promotion, even though treatment has been shown to have only a modest improvement in life extension or quality of life.

Social capital

Social capital refers to the norms and networks that enable collective action. Social capital has been defined as "features of social organisation, such as civic participation, norms of reciprocity, and trust in others, that facilitate co-operation for mutual benefit." [18] Increasing evidence shows that social cohesion, or social capital, is critical for poverty alleviation and sustainable human and economic development. [19, 20] The impact of poverty on health can be illustrated by the fact that "People from households with an annual income of at least $25,000 live an average of 3 to 7 years longer, depending on gender and race, than do people from households with annual incomes of less than $10,000." [21] It is sobering to realise that the impact of medical care since 1900 has been to extend the average life expectancy by about five years [12, 13, 22] , while a similar effect can be produced by raising annual household income by $15,000 from $10,000. [21]

The World Bank has realised that providing funding to build infrastructures, in developing countries, does not cure poverty. Increasing social capital through funding projects that increase literacy, independence, shared decision-making in communities, as well as cooperating to solve common problems, such as disease prevention, are essential for building healthy societies. [23]

Currently U.S. health care does not view social capital as an important component of the total system. Its potential role will be discussed later in this paper.

Relationship between education and health

Although it has been shown that income level is related to mortality, education level has a greater effect. The explanation proposed is that education leads to improved income levels. [24] However, expenditure on traditional health care is concentrated mainly on curing existing disease, without any attempt to raise educational levels. Since increased education is associated with better health, the lack of any formal linkage between health care and education means that an important opportunity for improving health is missing from our system. Since I described in the introduction how inefficient the U.S. health expenditure is compared to other countries, it would make sense to design a system that combines education for the poor with health care. It seems illogical to design Welfare to Work programs that push people into the lowest paying jobs, often dependent on continued Medicaid support. Without increased education and training, people will still remain poor, with increased needs for health care and public support.

Self-care

Self-care can be defined as the prevention or management of a disease by an individual or their family. Self-care can be categorised into regulatory (eating, sleeping, bathing), preventive (exercising, dieting, tooth brushing), reactive (responding to symptoms without a physician's intervention), restorative (behavior change and compliance with a professionally prescribed treatment regime). [25] Self-care is widespread with 60% - 80% of problems managed without a physician visit; the outcomes are usually beneficial and rarely harmful. [25] Five studies have shown a decrease in physician visits by 7% - 15%. [26] Self-care seems to be a universal practice that is not explained by demographics, attitude, or health status. [25]

Fries et. al. have proposed that self-care should be an important part of a new model of health care with a five layers (Figure 1, page 34). [26] The outer layer of health care should be health promotion and disease prevention. The second layer should be self-management of new symptoms using self-care medical books or other home resources. If more advice is required then telephone assistance from a nurse can be sought; the third level of care. If the nurse feels a physician is needed, a visit is arranged to manage this acute episode; fourth level. The fifth level is the professional management of chronic diseases.

This model is unique for several reasons. Firstly it breaks the tradition that "Doctor knows best" and places the individual in the position of initial decision-making and control. It matches the degree of management skill to the complexity or severity of the problem. There is no need to use expensive physician services for something that can be self-treated or with the help of a nurse. This is an example of demand management where individuals are encouraged to use medical services only when necessary, rather than to restrict medical use, which is characteristic of supply management. [27] The benefits of self-care with demand management were demonstrated by results from 32 programs with

cost savings in their first year of about 20% - truly remarkable. [26] These programs deal with chronic conditions such as arthritis and Parkinson's Disease.

The potential savings from self-care and demand management can be seen by examining current treatment patterns. In 1998 there were 25,000,000 ambulatory visits by children and adults for the common cold. [28] The majority of these infections were of viral origin and did not require a medical intervention. In 1992 a U.S. study revealed 76% of all antibiotic prescriptions in community practice were for acute otitis media (AOM), upper respiratory infections, bronchitis, pharyngitis, and sinusitis – again mostly viral infections not needing antibiotics. [29] It has been shown that most children with AOM have a viral infection that if treated with over-the-counter pain medication and a nasal decongestant, over 90% will recover in approximately four days. [30] However, in one study 98% of children with AOT received inappropriate antibiotics, with the risk of developing bacterial resistance. [31] It is reassuring to know that restricting antibiotics, to children diagnosed with bacterial respiratory infections, has not resulted in an increased rate of complications and appears to be safe. [32] It is interesting to note that although parents reported they understood colds were caused by viruses, a high proportion also thought they were caused by bacteria and needed antibiotics. [28]

In summary, antibiotics are over-prescribed, leading to drug resistance and unnecessary health care costs. [33, 34] Self-care has the potential to reduce these problems but only after effective education. [28]

Currently self-care is not a major component of any national health care system. Over 20 years ago the need for self-care, with additional support from health facilitators, was recognised. [35] Salber defined primary care as "centered in the family or other close social support system within the community's natural social structure. All professional care is external to that natural structure and is, therefore, secondary in function." [35] Salber also drew attention to health facilitators, who are lay advisors from the local community and can provide advice to individuals.

Facilitators are often people from within the household or a relative, friend or neighbour, nurse, or druggist. The facilitator's role is to provide initial guidance to an individual and to supply links for professional help if needed. They deal with a wide range of social as well as medical topics. Non-medical social problems often have a major impact on health e.g. transportation, housing, employment, death and dying. Facilitators receive a part-time training over a three-to-four-month period. [35] Since they are usually members of the local community, they have an intimate knowledge of the local culture, with acceptance from ethnic groups that doctors often lack. [36] Facilitators can be independent or attached to health centers.

Self-care has been identified, by the National Health Service of the United Kingdom (UK), as a critical development area for management of chronic disease. [37] In the initial phase, the UK plans to develop self-care management of arthritis, asthma, back pain,

diabetes, epilepsy, heart failure, and multiple sclerosis. [38] In the US medical care costs for chronic diseases account for more than 75% of national health care expenditure [39] or approximately $1 trillion in 2001. During the last 20 years, Stanford University has been developing chronic disease self-management programs for heart disease, lung disease, stroke or arthritis, which are available in many states and internationally. [40] From a series of studies, Stanford reported "Subjects who took the Program, when compared to those who did not, demonstrated significant improvements in exercise, cognitive symptom management, communication with physicians, self-reported general health, health distress, fatigue, disability, and social/role activities limitations. They also spent fewer days in the hospital, and there was also a trend toward fewer outpatients visits and hospitalizations. These data yield a cost to savings ratio of approximately 1:10. Many of these results persist for as long as three years." [41-44]

Despite the success of these programs, their use is based more upon local initiatives rather than standard policy for private and public health plan utilization at the state and federal levels. There is a need for large-scale development.

Professional care

In 2001, physicians' services were $313 billion and dental services $66 billion or 27% of national health expenditures. [4]

The quality of health care in the U.S. leaves a lot to be desired.

"Studies over the past decade show that some people are receiving more care than they need, and some are receiving less. Simple averages from a number of studies indicate that 50 percent of people received recommended preventive care; 70 percent, recommended acute care; 30 percent, contraindicated acute care; 60 percent, recommended chronic care; and 20 percent, contraindicated chronic care. These studies strongly suggest that the care delivered in the United States often does not meet professional standards." [45]

The Institute of Medicine concluded that somewhere between 44,000 and 98,000 people die in hospitals from preventable errors. The lower figure still represents more deaths annually than from all automobile wrecks, breast cancer, and AIDS combined. [46, 47] Estimates of total annual costs, from preventable hospital errors leading to morbidity and mortality, are from $17 billion to $29 billion. Adverse events that are not preventable cause an additional $37.6 billion and $50 billion. In 1996, adverse events were equivalent to 6% of total national health expenditure. [47]

There are various reasons why the professional care delivered fails to provide what people need.

1. Primary care systems were originally designed to manage acute illnesses and have not changed, despite the increased prevalence of most major chronic diseases. [48,49]

This is particularly important, since chronic diseases consume most of our dollars, yet our health care is not designed to manage these diseases efficiently.

2. There are few clinical programs, with the required multidisciplinary infrastructure, to provide the full complement of services needed by people with common chronic conditions. [48]
3. Few primary care settings achieve whole-person care as perceived by patients. [50]
4. The design of the care system, not the specialty of the physician, is the primary determinant of chronic care quality. [51]

The data above, albeit at a high level, are described in terms of outcomes and their relationship to the current health system design. However, there is another aspect of health care that should be considered regarding increased efficiency through delegation of services to nonphysician clinicians (NPC) of care. NPCs include nurse practitioners, physician assistants, nurse-midwives, chiropractors, acupuncturists, naturopaths, optometrists, podiatrists, nurse anesthetists, and clinical nurse specialists.

An economist, William Baumol developed an economic theory in the 1960s, "Baumol's disease," which says that because productivity in the labor-intensive service sector tends to lag behind manufacturing, costs in service-related businesses increase over time. [52] In the healthcare sector, which is very labor intensive, delegation of services to less expensive NPCs is a way of attempting to reduce costs. "Studies of both the traditional and alternative disciplines have found that NPCs' care is generally cost-effective, and is met with a high degree of patient satisfaction." [53] It is predicted that by 2005 the number of NPCs, who provide various elements of primary care, will equal the number of primary care physicians. [53] However, for efficient use of NPCs, regulatory integration and professional collaboration are needed. In 1998, it was a minority of states (range one to six) who allowed independent licensing boards for nurse practitioners, midwives, physician assistants, and clinical nurse specialists. [54] Less than half of all the states allowed independent practice of NPCs. For a free market to perform efficiently, NPCs' licensing boards and practices need to be independent of physician control. The very nature of professions leads to a lack of free market competition and loss of access to services for many parts of society. [55] The dental profession is very protective of its market monopoly and a recent paper demonstrated that amending state laws does not guarantee independence for nondentist clinicians. [56] Since there is some degree of overlap between NPCs and a subset of physician services, it would not be surprising to see some resistance from the medical profession in freeing NPCs from their restraints. [57] In 2000, only four percent of all patient contacts, in an ambulatory care setting, included physician assistants or nurse practitioners, which demonstrates that utilization was low. [58] If the predictions are correct, in only two years there will be a large workforce of NOCs and it will take a concerted effort, on behalf of legislators and doctors, to design a system that will allow them to work.

To summarise, professional care is organized to manage acute rather than chronic diseases, often fails to meet professional standards, produces a large number of preventable deaths, and is not utilizing the available NPC workforce.

Prescription drugs

In 2001, national expenditure on prescription drugs was $141 billion or 10% of total expenditure. [4] Revenue growth of the drug industry in 2001 was 9.5%, average profit margins 20%, and over the past five years it has outperformed the S&P 500. [59] Between 1990 and 2001, expenditure on prescription drugs increased from 6% to 10% of total national health expenditure. [4] Since 1995, the annual growth rate of prescription drugs has been 10% to 18%, the largest of any health sector, even greater than hospital or physician services. [59] The high drug increase is due to various causes: an ageing population with chronic diseases, increased drug prices, new branded drugs, and extension of patent life due to drug modifications.

All drugs produce multiple effects on a person; hopefully the desired beneficial one and usually a number of side effects, which can range from undetectable to lethal. Conservative estimates for the costs of adverse drug events are equivalent to about 6% of national health expenditures. [47] Drugs should always be avoided unless the benefits far outweigh the risks and there are no alternatives to their use.

Drugs can be broadly categorised into use for the prevention or treatment of diseases. However, there is some confusion between true primary prevention and drugs used to prevent the complications of a disease, such as diabetes or hypertension. Water fluoridation is a good example of primary prevention for tooth decay and when coupled with a good diet, is very effective in preventing dental caries. However, oral diabetes medication for type 2 diabetes, is used to prevent the complications from the disease, and is a treatment not a primary prevention.

The top eight drug categories, in order of decreasing share of total 2001 sales, are antidepressant, antiulcerant, cholesterol reducer, broad antibiotic, antiarthritic, antihypertensive, narcotic pain killer, and oral diabetes. [60] These eight drug groups accounted for 43% or $61 billion of all retail drug expenditure. [60] It is instructive to examine how many of the diseases these drugs are prescribed for are preventable.

More than 19 million adults in the U.S. suffer from depression, with twice as many women than men affected, and poor women on welfare even more susceptible to depression. [61] Depression is associated with race, ethnicity, poverty, and unemployment, affecting children as well as adults. [62-64] Investments in education, job training, and community support will help to remove many causes of depression rather than suppressing the symptoms through drug therapy.

Obesity, due to poor diet and lack of exercise, are often associated with an elevated level of cholesterol, osteoarthritis, hypertension, cardiovascular disease, and type 2 diabetes. [65-67] Unfortunately in the U.S., obesity is now a major public health problem with type 2 diabetes appearing frequently in children. [68] A healthy life style will prevent or delay the onset of these diseases. [60]

As discussed previously, a large proportion of antibiotics are needlessly prescribed for upper respiratory infections.

It would seem that a high proportion, of the $61 billion spent on the eight most popular prescriptions, could be avoided by investing in community based health promotion and disease prevention. If we could save 50% of the expenditure of these drugs, $30 billion, this is equal to twice the sum spent, in 2002, by the Department of H.H.S. on disease prevention and health promotion. [8] It is helpful to consider drug treatment of preventable disease, as an indication of failure to provide successful disease prevention programs.

Here again is strong support for emphasising the potential power of demand management rather than supply management. However, with consistent large profits made by the drug industry, there is also a case for supply management as well.

To summarise, a large and increasing proportion of health expenditure is for drugs, many adverse events are drug related, and a large proportion of drugs are used to treat preventable diseases. There are good opportunities for reducing drug use through demand management utilising prevention self-care programs.

Administration

I shall define administration as activities required to support the delivery of care, but excluding the actual clinical interventions themselves. However, in these expenditures, profits need to be included.

> Himmelstein and Woolhandler recently published an excellent overview of administrative expenditures [69] that I will quote from, using their references.

"Bureaucracy now consumes nearly 30% of our health care budget ….. this enormous bureaucratic burden is a peculiarly American phenomenon." [70-72]
"Our biggest HMOs keep 20%, even 25%, of premiums for their overhead and profit; [73] Canada's National Health Insurance [NHI] has 1% overhead, [74] and even US Medicare takes less than 4%." [75]
"The average US hospital spends one quarter of its budget on billing and administration, nearly twice the average in Canada." [72]
"Administration consumes 35% of home care agency budgets in the United States, as opposed to 15.8% in Ontario." [76]
"Reducing our bureaucratic spending to Canadian levels would save at least $140 billion annually, enough to fully cover the uninsured and upgrade coverage among those now underinsured."
"While all nations with NHI have lower health administration costs than the United States, multipayer systems sacrifice part of this advantage."
"Insurance overhead in multipayer NHI systems of Germany and the Netherlands is at least double that in Canada." [75]

"Private insurers in Australia, Germany, and the Netherlands all have high overheads: 15.8%, 20.4%, and 10.4%, respectively." [75]
In a different paper, it was reported that compared to hospitals in Austria and Germany, the U.S. hospitals employed 11 times the administrative managers and more than five times the financial operations' personnel. [77]

It is clear that a multipayer for-profit private health insurance system adds an enormous amount of avoidable expenditure, which could better be spent on expanding cover to more people.

Litigation

In 2001, $4.5 billion or 0.3% of national health expenditures were malpractice payments made by physicians and their insurers. [78] A large portion of the total was $ 2.3 billion to plaintiffs for Nursing homes compensation. [79] "Only one in 15 patients who suffer an injury due to medical negligence receives compensation, and five-sixths of the cases that receive compensation have no evidence of negligence. Rather, the primary determinant of whether an injury will receive compensation is the extent of the injury, not the extent of the fault. There is little evidence of how existing malpractice law reforms affect the incentives for physicians and hospitals to undertake precautionary care, and how law-induced changes in incentives affect medical treatment decisions, and thereby medical expenditures and health outcomes." [80]

The following data on malpractice payment reports were derived from the National Practitioner Data Bank report for 2001. [81] In 1997, there were 18,292 total payments from physicians, dentists, and other practitioners. In 2001, this increased to 20,598 or 12.6% from 1997. The annual increases fluctuated from –5% to 6.2%, but for 1999 to 2001 averaged 2.8% per year. Physicians were responsible for 78% of the payments over five years, and 2001 they made 16,703 payments, with a median of $135,000. Surprisingly, 12% of physicians made 3 or more payments from 1990 to 2001, [81] and 1.7% were responsible for 27% of all malpractice awards. [82] Perhaps this indicates that current tracking methods and punishments are not a strong deterrent to repeat litigation.
In one study, unsolicited patient complaints captured and recorded by a medical group of 645 physicians were positively associated with their risk management experiences. [83] There may be scope for developing predictive methods for identifying and modifying physician's behavior to prevent malpractice claims.

Recently a lot of media attention has been given to doctors, claiming that increases in medical malpractice insurance premiums were forcing them to give up their practices. [84] Insurers claim that excessive jury awards are forcing rates to rise, yet the malpractice payout growth has averaged about 6% per year and the total awards have increased 29% from $3.5 billion in 1996 to $4.5 billion in 2001. [84]

However, one explanation for the sudden rise in malpractice premiums is not an increase in payouts, but poorly performing investments made by insurance companies in the stock market. A direct relationship is found by premium increases and market declines. [85]

One solution for reducing malpractice awards is for a cap of $250,000 on payouts. In 2002, capped states saw a premium rise averaging 12.7%, while states without rose 20.4%. [84] However, in July 2002, Nevada enacted a $350,000 cap and insurance companies decided not to reduce premiums. [85]

Although there are data available for assessing premiums, claims, and payouts, there is little in the literature describing the total impact on costs from doctors applying defensive medical practices.

In summary, malpractice insurance premiums are influenced more by stock market cycles than by malpractice claims. Doctors have a role to play in changing their behaviors to reduce claims. Award caps do have a modest effect in reducing premiums.

Fraud or inappropriate claims

Fraud and abuse probably account for approximately 10% of total health care expenditure. [86] In 2001 that would have been equivalent to about $140 billion or 73% of all state and local expenditures. In 2001 Medicare expenditure was $235 billion and Medicaid $209 billion. [87] "Half of the states spend no more than one-tenth of 1 percent of [Medicaid] program expenditures on activities to safeguard program payments." [88] In 2002 $145 million were allotted to the Department of Health and Human Services/ Office of the Inspector General for anti-fraud activities. [89] These funds are required to support the anti-fraud program required by the HIPPA Act of 1996. [89] In 2002, as a result of the combined anti-fraud actions of the Federal and state governments and others, the Federal government deposited and appropriated to the Medicare Trust Fund $1.6 billion. [89] Compared to the potential of preventing or recovering the fraudulent loss of $140 billion per year, current recoveries are only about 1% of potential savings.

It is sobering to realize that for-profit-insurance overheads combined with the costs of fraud might account for 40% of total health expenditures.

The existing expenditures on anti-fraud programs amount to only one-tenth of 1 percent of total national health expenditures. If $145 million spent on an anti-fraud program saved $1.6 billion, a cost of $1 for every $11 recovered, it would seem that a significant increase of expenditure on anti-fraud programs is needed.

Access to care

Ease of access to care is affected by many factors:

- Income and employment – almost one quarter of the population has no public or private health insurance cover. [6,7] "Over eighty percent of uninsured persons under 65 are members of working families. Their jobs do not provide insurance and buying individual coverage is frequently too costly." [90]
- Language and cultural barriers – many women prefer to be examined by female rather than male doctors. There is a lack of trust between African Americans and the biomedical community related to social and medical experiences of this group. [91]
- Immigration status – illegal immigrants may delay seeking care from fear of deportation.
- Geographic location – many urban areas lack professional medical personnel. In fact "there is an oversupply of physicians but that they are poorly distributed geographically and by specialty." [92]

Despite the multifactorial causes of poor access to care, lack of insurance is a major contributor to the problem. The health consequences from lack of insurance coverage are that "Uninsured people are more likely to receive too little medical care and to receive it too late, to be sicker and to die sooner. They are reluctant to use health services, often waiting until there is a crisis. They receive fewer preventive services, less regular care for chronic disease, and poorer care in the hospital." [90]

In order to improve access to health care, all the above factors must be taken into consideration when designing a new health system.

This concludes my brief overview of the current problems of the US health care system, setting the background for my solutions.

A BRAVE NEW HEALTHIER WORLD

I would like to commence with some general statements that are supported by the previous section:

1. Spending money on medications and high technology treatments does not produce healthy populations. Keeping people healthy is cheaper than trying to cure diseases.
2. A large proportion of disease is caused by poverty that no amount of medical care will cure. Lifting people out of poverty by providing education and life skills will reduce the chances of becoming sick.
3. People in poverty have many practical barriers to overcome in order to receive an education, such as poor life skills, low self-esteem and confidence, few close relatives for emotional support, poor housing and access to transportation, young children needing day care, little money to buy the services they need, a language barrier. The list is long.
4. Forcing people off of welfare into low paid minimum wage jobs does not lift them out of poverty. They still rely on Medicaid and all the non-medical causes of disease (poverty) are still present, so they will get sick and cost the state more money.
5. We can divide health policy into two possible areas –
    a. getting people out of poverty and teaching people healthy lifestyles to prevent or delay diseases.
    b. universal health care coverage through increased efficiency and reducing demand for care.

I would like to suggest a strategy for achieving both of these goals. The first is via vocational training villages and the second via capitation funded community health and private medical office collaborations.

COMBINING VOCATIONAL TRAINING & HEALTH EDUCATION FOR LOW INCOME FAMILIES

A Not-For-Profit Village

Introduction

One of the most difficult problems in society is lifting single parent families out of poverty to become healthy productive members of society. The current welfare programs provide just sufficient to keep people off the streets, but not enough for them to obtain a full-time education plus all that is necessary to support the family. It is very sobering to calculate how much is needed for a mother plus three young children if you include food, clothing, accommodation, travel, full-time education at a community college, plus a small amount for leisure as well. Assuming Medicaid covers the family then I estimate a mother needs about $44,000 a year. If state training grants can be obtained then this figure will reduce to about $36,000 per annum. With additional welfare payments for food then perhaps the shortfall is about $30,000 per year. How do we solve the problem?

A possible solution could be to develop not-for-profit companies who will offer five-year contracts to single parent families. Assuming that the companies can act as agents with state and federal agencies to assist the parent obtain funds, then the companies will offer the following:

Years 1 and 2

In a small "village" the families will receive accommodation, food, clothing allowance, and child day care. The mother will attend a full time local community college studying to become a Licensed Practical Nurse (LPN). Training is usually over 12 months but a preliminary six months will be required to increase reading, numeracy, and life skills, plus a four-week course as a nursing assistant. Also, during this initial period, mothers will be provided with health education for themselves and their children. A period of three months will follow when they work as nursing assistants in the nursing home that is situated in the village. Providing their progress has been good, the mothers will then be offered a year's full time education to become an LPN.

Years 3 to 5

During this period the family will continue to live in the village, while the mother works in the nursing home. In order to pay back for the first two years, the mother will work unpaid in the nursing home, except for a small allowance, for three years. During this period the family continues to receive free accommodation, food, clothing allowance, and day care. Health care during this period would be covered by a group health plan that is organised by the employer.

The anticipated benefits of this program are that it is an integrated package allowing a parent to obtain the full time education they need in a safe supportive environment free of stressors. In addition they learn how to keep themselves and their children healthy, reducing health care needs. Within two years of starting the program the mothers are already contributing to society by working as LPNs. The critical shortage of LPNs and nursing homes could be reduced by the training "village."

It is interesting to compare income levels for LPNs versus adults in training programs. During the year 2000, the median income for an LPN was $29,500. [93] By comparison during the period July 1, 1999-June 20, 2000, the JTPA program for disadvantaged adults had 66% of the terminees employed 90 days after program termination, with an average weekly wage of $347 (approx $18,000/year). [94] The LPN is approximately twice the poverty level while JTPA program graduates are about one and a half times the poverty level.

"Employment of LPNs is expected to grow about as fast as the average for all occupations through 2010 in response to the long-term care needs of a rapidly growing elderly population and the general growth of healthcare. Replacement needs will be a major source of job openings, as many workers leave the occupation permanently.

Employment of LPNs in nursing homes is expected to grow faster than the average. Nursing homes will offer the most new jobs for LPNs as the number of aged and disabled persons in need of long-term care rises. In addition to caring for the aged and disabled, nursing homes will be called on to care for the increasing number of patients who have been discharged from the hospital but who have not recovered enough to return home." [93]

In 2002 there were approximately 17,000 Medicare and Medicaid-certified nursing homes. [95] If 500 nursing homes were to set up not-for-profit training programs each accepting 20 families per year, this would total 50,000 families over five years or between 100,000 to 150,000 children for the average single parent welfare family with two to three children. If 5,000 nursing homes participated then 500,000 families with up to 1,500,000 children would benefit. With approximately 3 million single parent families in 2001 being covered by Medicaid, [96] this would be equivalent to almost one-sixth of these families.

The benefit to nursing homes would be a steady supply of trained workers plus approximately one year's free labor, $29,000, per five-year contract over and above any expenses.

The model I have suggested trains mothers as LPNs, but in principle other short training period occupations could be considered, increasing opportunities and taking advantage of local needs in different communities.

ACTION

I propose that federal funds are made available for a pilot program of five sites, each in a different state. The program should have a central administration centre to oversee the project. Existing nursing homes should be sought with local accommodation for 20 trainees per year for five years. For the evaluation trial, $50,000 per year per family would cost $1,000,000 for 20 families in one site or $5,000,000 for five sites. Over a two-year period this would total $10,000,000 plus a central administration cost of $1,000,000 making a grand total of $11,000,000. For years three to five the nursing home companies would take over the costs of the new training intakes plus the graduates who were completing their three years of pay back time. The central administration would need $3,000,000 over this period to continue oversight and evaluation.

The project budget is a worst-case scenario of $50,000 per year per family, since the amounts of monies available from welfare and training grants vary from state to state and over time. Part of the project outcomes will be knowledge of how much funding is available and the best methods to access it in a consistent manner.

In summary, $14,000,000 of federal funding is required over five years to test this proposal.

UNIVERSAL HEALTH CARE COVERAGE

REORGANIZING FUNDING OF HEALTH CARE: INCREMENTAL CHANGE OR A SINGLE PAYER SYSTEM?

Actually Neither

A national health care system has been proposed for over 100 years in the USA, but only limited success was achieved in 1965 with the creation of Medicaid and Medicare. [97] Reformers usually suggest one of two approaches: a sweeping single-payer national health insurance or an incremental change of the existing system. [98] However, there is a third way of expanding low-income coverage through subsidized private insurance. Some states are moving towards universal health coverage using subsidized insurance plans with various cost control measures, and Maine is the first to provide this coverage commencing in 2004. [99]

However, I believe that Maine will only achieve limited improvements of coverage in the short term as they have not fundamentally reformed health care delivery and in two to three years, increasing costs will outpace any savings. The reforms needed are drug price controls, demand management by patients rather than supply management by doctors, capitation rather than fee-for-service, self-care patient management, reduction of administration and for-profit costs, and malpractice litigation caps. If Maine can quickly follow up introducing these reforms then it will be possible to have an affordable universal coverage system.

Expanding coverage through efficient use of public funds

I would like to offer a different way, based upon using current public health expenditure levels more efficiently, to cover the existing Medicaid and Medicare populations plus the "working poor."

As described in page four, the US currently spends approximately the same proportion of GDP as the United Kingdom (UK) spends on its whole population but we only cover 25% of people. If we combine our Medicaid, Medicare and uninsured populations this totals about 50% of the total population. If the UK can cover all the people, then we should be able to cover 50% for the same proportion of GDP if we reform care as I outline above.

Implementation strategy

1. Physicians, dentists, and other health care providers are offered individual capitation fee contracts for patients. In addition, certain capitation

population incentives are provided, such as a bonus if 80% of all eligible immunizations are achieved, or a higher bonus for 90%. Similarly smoking cessation, hypertension, and weight loss programs should be funded.

2. By offering individual capitation contracts it allows health providers to keep their independent private contractor status, rather than offering salaried contracts to cover all the office population. In this way providers can continue to work under traditional private fee-for-service while gaining experience with the new system.
3. States will need to pass litigation caps of $250,000 for medical malpractice.
4. Through the use of community health promotion and disease prevention programs, the cost of provider services should be reduced allowing the existing public expenditure to cover 50% of the population.
5. Since the new community based approach to health care should be cheaper than conventional health care, the public system could be offered for employers to purchase in direct competition to existing private insurance. The public premiums should be cheaper than private since the administrative overheads should be a lot less and there is no "profit" cost to be paid. By designing the public capitation administration to require the minimum of forms, and by designing the forms for Medicaid and Medicare to be identical, office administrators and providers should find their costs and frustrations reduced.

ACTION

A five-year program needs to be funded by Congress to achieve the following:

1. Years 1 and 2

   A contract will be awarded to a health consultancy to select five sites, each in a different state. Each site should be close to one of the "training villages" so that comparisons can be made between similar populations that differ by the social support and stress reduction of living in the village. Each site will comprise a family primary care office with multiple physicians and support staff including nurse practitioners and midwifes. The health consultants will be responsible for selecting and training community health facilitators plus creating a structure for interfacing the physicians with the community workers.
   Physicians and nurses will agree prescribing guidelines to avoid unnecessary drug therapy as well use of patient self-care management programs. Antenatal and neo natal education programs will provide health education for smoking cessation, substance abuse avoidance, nutrition, diet, exercise, and prevention of early childhood tooth decay.
   In addition a simplified administrative system be designed by the consultants to allow the offices to contract with Medicaid and Medicare to pay for services. The

state will agree to provide similar cover to the working poor as under Medicaid. The administration will be computer-based and on-line to the payers and if necessary Medicare and Medicaid will have a special office to deal with the administration from the test sites. The Medicare/Medicaid interface to the offices must be user friendly, both to the providers as well as the patients.

2. Five matching control sites need to be selected

3. Years 3 to 5

The outcomes will be assessed by vaccination rates, numbers of care visits versus prevention visits, smoking rates, substance abuse, weight, child development measures, disease incidence, prevalence and severity measures. Costs of providing prevention and treatment need to be compared between test/control sites.
By situating the five training villages next to the health offices, we will have during years three to five of the study, total cohorts of 300, 400 and then 500 single parent families for comparison against families attending the test offices and the controls. In this way the anticipated benefits from reduced environmental stressors on the village families compared to the other groups can be tested for reduced disease and care costs as well as improved self-reported measures of well being.

Cost estimates: The costs of care can be estimated by looking at existing Medicaid/Medicare costs for a given population and assigning a similar amount to cover the uninsured people who are part of the trial. Assuming that Medicare and Medicaid will agree to provide normal total funds but as capitation payments then the contracts for care can be designed. The critical component in estimating current population treatment costs is to include the anticipated Emergency Room visits, hospital inpatient and outpatient visits, as well as drug costs. It is anticipated that 20% of all these fees can be saved by using a combined community and doctor office care method. Capitation should be set at a rate that is attractive to the doctors but will still produce a 20% overall saving BY REDUCING PATIENT DEMAND through better prevention and disease management.

The exact costs for this project will need to be calculated by a team of researchers as it will take considerable time and effort to provide reliable cost estimates. As a preliminary guide $1,000,000 is needed to fund the project design and cost estimation.

CONCLUSIONS

I started this paper by commenting on the need to understand the cultural values of US society, which led to the current health care system. It is also necessary to appreciate the factors promoting change. In general, large-scale organizations change in response to pressures in their environment. Large numbers of people, companies, and organizations are presently dependent on the 14% of GDP that is spent annually on health care. As long as these companies continue to employ people and generate profits, there is little pressure on them to change. Similarly if these organizations lobby and support politicians there is little political will for change. Possible pressures could come from grass-roots groups, such as the Civil Rights movement. However, whereas racial inequality leading to social injustice is a relatively simple concept to understand, the complexities of health care are not generally appreciated, leading to a dependence on our leaders to make the right choices for the population. [100]

Another possible pressure is the outright collapse of high technology medicine, due to rising costs and inefficiency driving doctors and hospitals out of business. The recent high increases of malpractice insurance premiums are already producing some early retirements or talk of relocating offices to lower premium states. Eventually economic and social pressures will force stakeholders and politicians to support reforms similar to those outlined in this paper. Until that time, the people of the US will continue to pay for the most expensive and least equitable health care system in the industrialized world.

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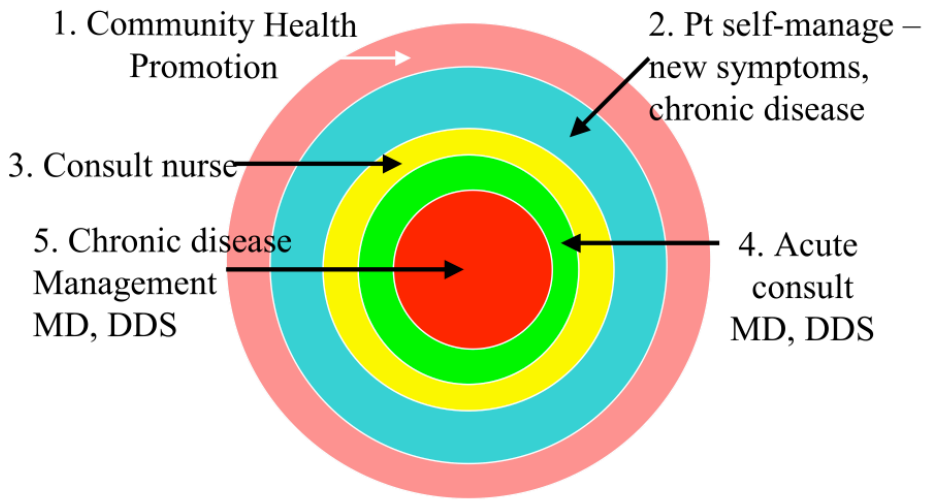

Figure 1. Selfcare – the new model of care
Old model of care: Problem? See MD, DDS immediately