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Possible adaptations to the United States from South Korea's healthcare system

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Possible adaptations to the United States from South Korea's healthcare system

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**Possible Adaptations for the United States from South Korea's Healthcare
System**

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Table of Contents

Introduction to the United States Healthcare System	3
Problems in our System	3
Affordable Care Act.....	8
Introduction to the South Korean Healthcare System.....	15
Demographics.....	15
History	17
Major Issues of the Healthcare Financing Reform.....	20
Benefits of the Healthcare Financing Reform	20
Healthcare Financing.....	21
Costs of the Financing Reform.....	21
Recommendations for the U.S. Healthcare System	30
Appendices.....	34
Bibliography	34

Introduction

The topic of my senior thesis is the South Korean Health Care System vs. the United States Health Care System and aspects that can be taken/adapted from the South Korean System to help the United States Health Care System. South Korea, also known as The Republic of Korea, is a high-income country that has come under rapid development over the past few decades. Although they are incomparable in size to the United States, they were able to spread universal access to health coverage throughout their entire population in a span of 12 years. This is something we have still not come to in terms of achieving. Even with these achievements, South Korea still has their downfalls, such as their decreasing birth rate and increasing elderly population. A similarity arises here in that the aging population problem is mutual and it is creating higher medical costs and expenditures. Seeing as to how they are dealing with issues such as these can help us obtain or borrow ideas for solutions for our own country. Their Healthcare System seems to be highly successful and has very few limitations as well. Another major problem the United States is facing is the lack of funding, which is diving us deeper into debt. According to the National Assembly Office, South Korea's debt is only 35% of its GDP, whereas the United State's debt is 104.68% of its GDP. Perhaps this can also be an aspect that we can see if any ideas or philosophies can be adapted from the South Korean system. They also have programs similar to Medicaid and Medicare, which can further be looked into to see if there is a possibility in improving these draining programs. I hope to be able to gain a better understanding of how successful

universal healthcare programs work in other countries. I would like to see if it is possible to implement such a program in The United States as well. For example, since South Korea is a smaller country, perhaps it is possible for the information and methods I collect to be used on a state level instead of a national level. Although it may not be an immediate solution, I hope to be able to solve some of the issues we presently have with healthcare and better the access, utility, and quality for the future. I am also hoping to gain some insight on how healthcare is viewed in a different country to see if universal healthcare is really as desirable once it is obtained or if it is still a controversial topic.

The United States Healthcare System

Problems in our System

In 2007, Commonwealth Fund released results of a survey they did over the span of patients in seven countries on the basis of different aspects of each country's healthcare system. When looking at the specifics of the United States' data, the findings show the following faults. The United States spends the most money on healthcare, but we do not get what it's worth in return. When looking at the top 10 biggest spenders in healthcare, the United States spends more than the other nine countries combined. When looking at health and morality though, the United States is listed as last against 17 other developed countries. For every dollar spent on healthcare in the United States, 30 cents is wasted. This 30 cents is wasted through inefficient delivery of care, excessive administrative costs, unnecessary services, inflated prices, failure to seek preventative care, and fraud. When looking deeper into the high expenditure cost, the average cost of staying

at a hospital in the United States is \$18,000. This is in comparison to \$6,200 which is the average cost of a hospital stay for countries part of the Organization for Economic Cooperation and Development(OECD). With costs that high, 35% of Americans have a hard time paying their medical bills and those who are uninsured or underinsured with these medical expenses make up two-thirds of all bankruptcies. With the Affordable Care Act, everyone is now insured which should solve this problem a bit, but the costs of healthcare still have not changed a bit. Dr. Mercola, in his article on the Failures of the American Health Care System gives an example as,

"...a liter of normal saline rings up at \$546. This one-liter bag of saline contains about nine grams of salt (less than two teaspoons), which costs 44 cents to a dollar to produce. But then the bag makes its way from the manufacturer through a series of giant group-purchasing middlemen and distributors before arriving at your hospital's pharmacy. Upon arrival, that IV bag has a mystery formula applied to it, and a price is magically determined, which is then recorded on your hospital's "chargemaster." No one really understands how these prices are calculated... Only recently did the federal government release the prices that hospitals charge for the 100 most common medical procedures, revealing tremendous and seemingly random variation in the costs of services. For example, if you need a hip replacement, you can spend \$5,300 in Ada, Oklahoma, or you can fork over \$223,000 for exactly the same procedure in Monterrey Park, California. You can find out how your state compares in average fees for

service using an interactive online chart created by the Washington Post."
(2014, para 16).

It seems the healthcare system has become more like a business to make money out of instead of its initial ethical purpose.

Out of the seven countries that were surveyed, the United States was also ranked second highest in terms of rate of chronic diseases. This is mostly due to lack of promotion of preventative care as well as health promotion. The typical lifestyle of Americans has become worse over the years with the popularity of junk food which are filled with sugar, chemicals, and processed grains. This strips food of nutrition and although Americans consume more calories than any other country in the world, they are also very malnourished. This has created a higher likeliness of insulin-resistance among both children and adults. Once diagnosed though, there arises another issue of proper coordination of care. Patients that get diagnosed with diseases like diabetes and kidney failure need a lot of care, discipline, and maintenance. Physicians have to educate the patients and remain aware and up to date with the treatments as well as the patient's medical history. Constant monitoring and following up with patients is For this reason it would be best for patients to have one medical home where they can have consistent care, but along with Canada, the United States has the lowest percentage of patients reporting a single medical home.

Another fault in the United States' healthcare system is the coordination and management of care. To be more specific, communication between providers and specialists can sometimes lead to inefficiency. For example, if all

the medical records from the previous providers is not passed on properly, it can lead to duplicate testing, holes in the medical record, violation of confidentiality, and thus bad quality health care. With the implementation of the Affordable Care Act, electronic medical records have become a requirement, but this is still going to take some time to resolve all together. Through firsthand experience working through an electronic medical record "Go-Live" at a hospital, errors happened in the duration of the transition in charting. On top of this, the graphic from Appendix 1 made by the America's healthcare referral system states more possible issues that can happen on the job. Paper referrals and other patient records including test results have often been lost and get reordered multiple times. This means a patient has to go through the same test over again, which costs money, just because the medical professionals were unable to find the results from an earlier test. As for referrals, when patients are referred to a more specialized physician, their information is often not fully received by the specialist, causing a repetition of treatment that may have already been tried.

Although Americans have shorter wait times for non-elective procedures, the amount of the population actually that have proper access to healthcare dampens this statistic. According to the 2007 survey, about one-third of Americans are either uninsured or underinsured. Due to high costs, even if they get sick, twenty-five percent do not seek medical care. Even if they were to seek medical care, if given any prescriptions, an equal percent of the population cannot afford to get their prescriptions filled. It is common in the United States for out-of-pocket spending on prescriptions to total over \$500 per year. With costs

like these, forty-two percent of Americans with chronic diseases also report skipping care and doctor's appointments due to the high cost of their medicine. So the only reason the United States can boast about their short waiting times is due to the a quarter of the population not seeking care. One reason for this could be that our healthcare is not particularly conveniently accessible for the general population. This criteria was determined by whether doctors provided early morning hours, evening hours, or weekend appointments. Sixty-seven percent of Americans reported that it's difficult to get care on nights, weekends, and holidays; thus having to go to the emergency room, which can be very expensive if you do not have a real emergent injury. In the past, many uninsured also would go to the emergency room for symptoms a simple normal check-up could resolve. This increases the waiting time as well as creates a variety of other problems for people who come to the emergency room with real emergencies.

Many also do not have a regular physician that they meet every year, decreasing the quality in care as they get passed among different medical professionals. Having a consistent physician can allow for a better understanding of the patient and the patient's history. Another area the United States lacks in is, not paying physicians in proportion to their quality of care. In many other countries, physicians have financial incentives according to the quality of care they deliver. When asked "percent of primary care practices with financial incentives for quality", the United States scored the lowest at a mere 30 percent.

The next criteria is regarding physicians' bedside manner. Although the United States had a seventy percent satisfaction rate, when looking more into the

detailed comments, Americans sounded less satisfied. Some common remarks included that doctors: did not explain things in a way that was easy to understand, do not spend enough time with them, and how efficient their appointments were with regard to lost/repeated tests.

Most Americans are dissatisfied with the current system as only sixteen percent are happy with the system as it is. Even though we pay the most out of all the countries in healthcare, we are also the least satisfied with our health care system. As Ezra Kellin from the Washington Post states,

"There is no other area of American life where we collectively accept such a bad deal. We spend the more than any other nation on our military, but our military is unquestionably the mightiest in the world. We spend the most on our universities, but our universities are the best on the planet. But we spend the most on our health care -- twice as much as anyone else -- and our health system is mediocre-to-poor, with 47 million of us lacking the insurance necessary to easily access it. It's not surprising that Americans want change."(2007, para. 18).

and change is definitely what followed in the years to come as the Affordable Care Act was prepared and implemented.

Affordable Care Act

The Study that the issues above were based on was conducted in 2007, before the Affordable Care Act was put into place. Although most of those issues still exist, here is a summary of what the Affordable Care Act has implemented and some of the fixes it is supposed to enact.

Starting in the summer of 2010, the affordable care act first aimed to protect consumers. Consumers were given coverage options and were able to compare and pick the one that fit them best online. A new law was also passed stating that coverage cannot be denied to children based on pre-existing conditions. The law also protected consumers from being denied payment for services based on any technical mistakes that they find in the consumer's application at a later time. It also protects against unreasonable hikes in premiums by requiring insurance companies to justify the reasoning behind it. Essential benefits, like hospital stays could no longer be limited as well as annual limits on insurance coverage. In case there is any issues with insurance, the law also establishes assistance programs in each individual state to help navigate health insurance.

Besides protecting consumers, they also improved quality and lowered costs through tax credits for small businesses, which helps them provide benefits for their workers. According to the U.S. Department of Health and Human Services, the Affordable Care Act also offered,

"relief for 4 Million Seniors Who Hit the Medicare Prescription Drug "Donut Hole." An estimated four million seniors will reach the gap in Medicare prescription drug coverage known as the "donut hole" this year. Each eligible senior will receive a one-time, tax free \$250 rebate check. First checks mailed in June, 2010, and will continue monthly throughout 2010 as seniors hit the coverage gap."(2012).

Another positive offering that solved some of the problems listed previously includes that all the new plans have to cover at least certain preventative measures. These have to be fully covered and should not have any deductibles, co-pay, or coinsurance. Along with this, is a \$15 billion Prevention and Public Health Fund that will be used to create public health programs that will help educate Americans more. Although there are already measures being taken to crack down on healthcare fraud, the new law requires more strict screenings for healthcare providers to reduce fraud among publicly funded programs like Medicare and Medicaid. On the topic of Medicaid, the new law also promises to match funds for states that opt to cover additional low-income individuals and families who previously could not be covered under Medicaid. In order to increase access to affordable care, the law created a pre-existing condition insurance plan, which helps provide insurance for uninsured Americans with pre-existing conditions. The law also extends coverage to young adults and early retirees by allowing young adults to stay under their parents' plans until they turn 26 years old and for early retirees, there is a \$5 billion program to help them until a more affordable coverage plan is available in the online exchange. To create better access to primary care, new incentives are also being given in the form of nontaxable scholarships and loan repayments for primary care doctors and nurses who work in underserved areas. Another way it helps is those working in underserved areas is, by increasing payment for those who work in rural areas to encourage a higher retention rate and attract providers to such areas.

In 2011, they made more improvements such as offering prescription drug discounts for senior citizens who reached the coverage gap under Medicare Part D. Senior citizens will continue to get additional discounts until the coverage gap has been closed, hopefully by 2020. Additional improvements for senior citizens include improvement in care for high risk Medicare patients once they leave the hospital and free preventative care. These provide help in coordinating care, helping patients find care closer to their community, annual wellness visits and personalized prevention plans for Medicare patients. In order to further improve the efficiency and quality of health care of healthcare as well as reduce the growing healthcare costs for Medicare, Medicaid, and the Children's Health Insurance Program, the Center for Medicare and Medicaid Innovation was formed to better test new ways of delivering care to patients. In terms of insurance, the law requires that 80-85% of all premiums that are collected must be used for benefits and quality improvement and those who do not meet these requirements have to provide rebates to their customers. Speaking of payments being used properly, Medicare Advantage insurance companies receive over \$1000 more per person than Traditional Medicare, this seems like an overpayment and Medicare Advantage plan holders will still receive their promised benefits but if the quality of care really is high, only then will the plans receive higher bonus payments.

2012's implementation included linking payment to quality outcomes, encouraging integrated health systems, reducing paperwork and administrative costs, understanding and fighting health disparities, and providing new options

for long-term care insurance. For Traditional Medicare, the made a hospital Value-Based Purchasing program which offers financial incentives for hospitals who improve their quality of care. Physicians who join together to form "Accountable Care Organizations" will also receive incentives. This is in hopes of improving quality, coordination, and help with promoting preventative measures and reducing admissions that can be prevented otherwise. In an effort to improve communications between providers and specialists, the new law also will establish standardized billing and the use of electronic health records to save on costs and create better efficiency. This is also supposed to greatly reduce medical records and loss of patient health records which is a major problem as stated earlier. Another major issue in the United States consisted of Health Disparities. To combat this issue, there is now a federal health program that will constantly monitor and collect information to report on racial, ethnic, and language data. The Secretary of Health Human Services will then use the collected data to identify and develop ways to reduce the found disparities.

For 2013, the main added implementations were expanding preventative health coverage and authority to bundle payments, increasing Medicaid payments for primary care doctors, and open enrollment in the health insurance marketplace. For those states who choose to cover Medicaid patients' preventative care services, the law provides more funding, but this option is of course up to the states. According to Kaiser Health News and Health Affairs, 11 states(Alabama, Alaska, Arizona, Arkansas, Georgia, Indiana, Nebraska, North Dakota, Oklahoma, Virginia, and Wyoming) do not cover any adult preventative

care exams for Medicare patients. Preventative care can help in the long run since it has an effect in decreasing the rising costs of healthcare. As providers receive more patients who are covered under Medicaid, the providers should be paid no less than 100% of Medicare payment rates for primary care services and this will be fully funded by the federal government. In terms of lowering costs, there is a national program that supports hospitals and providers to "bundle" payments so that providers are paid per episode of care instead of getting piece by piece under the current system of Medicare reimbursements. This also prevents multiple claims from multiple providers causing inefficiency in the system. A major development in 2013 was that the health insurance marketplace opened up to individuals and small businesses. This allowed for a more secure, transparent, and competitive place to buy health insurance at affordable rates.

2014 brought on prohibition of discriminating on the basis of pre-existing conditions or gender, getting rid of annual limits on insurance coverage, protecting individuals who are participating in clinical trials, making care more affordable, establishing the marketplace more, increasing the small business tax credit, expanding access to Medicaid, and promoting individual responsibility. Insurance companies cannot refuse to sell coverage or renew policies because of one's pre-existing conditions and they also cannot charge higher rates due to gender or health status. In an effort to further get rid of annual limits imposed by some health insurance plans, the new Act prohibits new plans as well as already existing group plans from having any annual dollar limit for individuals in the plan. Previously insurance companies have also dropped or limited coverage to people

who choose to participate in clinical trials, so the Act now ensures that they will remain with coverage. For now it is to protect specifically those who are in clinical trials that treat cancer or other life-threatening diseases, but hopefully there will be expansion on this in the future. To make healthcare more affordable for those who are part of the middle class, up to 400% of the poverty line, a tax credit is now available. Also, you can get this tax credit ahead of time so it can be used for people's monthly premiums. It can also be refunded if not fully used. Also improved in 2014 was a further establishment of the Marketplace with more tailored options that offer certain benefits and cost standards. As part of the second phase for encouraging small businesses to offer insurance, the law gives up to a 50% of the employer's contribution in the form of a tax credit. A similar credit of up to 35% tax credit is offered to small non-profit organizations. To further expand access to Medicaid, states will receive 100% federal funding for the next three years to cover those who are less than 133% of the poverty level. The federal funding will then become 90% after the three years but I believe by then the states will have figured out a way to make up for the 10%. By 2014, under the law, it is mandated that individuals who can afford health insurance are required to have it or pay a penalty fee, but for those who cannot afford it, they are eligible for an exemption. The penalty fee is supposed to help offset the costs that add up from caring for uninsured Americans.

Finally, in 2015, the most recent provision consists of paying physicians based on quality and not quantity. This seems to be a big step in the whole act to finally focus more on high quality care and reward providers who aim for it rather

than just basing it on the volume of patients treated. With the increasing expectations of the population, it is sometimes difficult to find how to adapt health care to adapt to the aging population. Overall I think the United States has made major improvements, especially within the past few years to further tailor the healthcare system to fit the current population and its needs. There are still many steps that can still be taken and although the United States is a big country, it seems feasible that there is potential for the United States to reduce costs, improve access, and offer higher quality healthcare in the future.

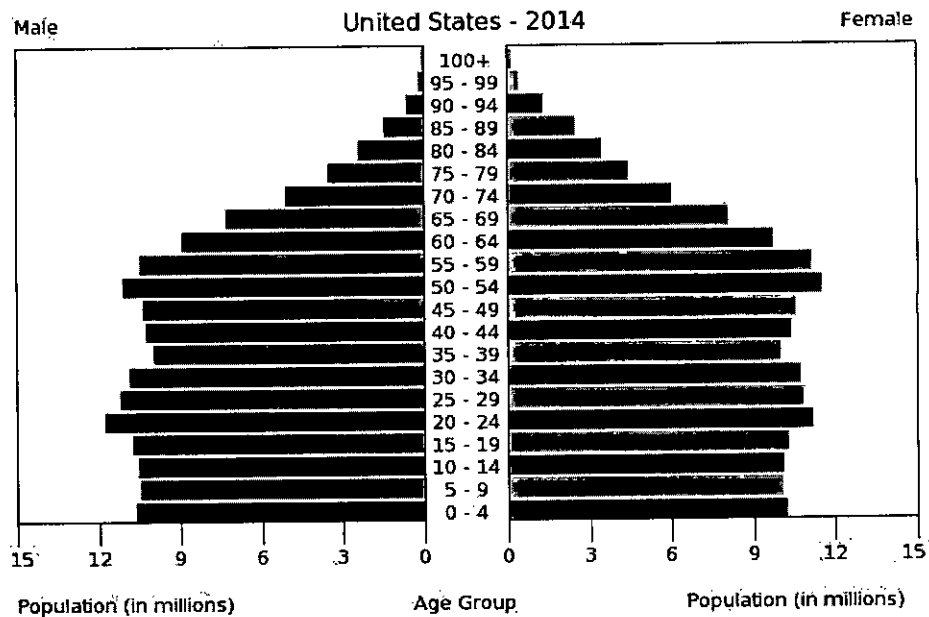
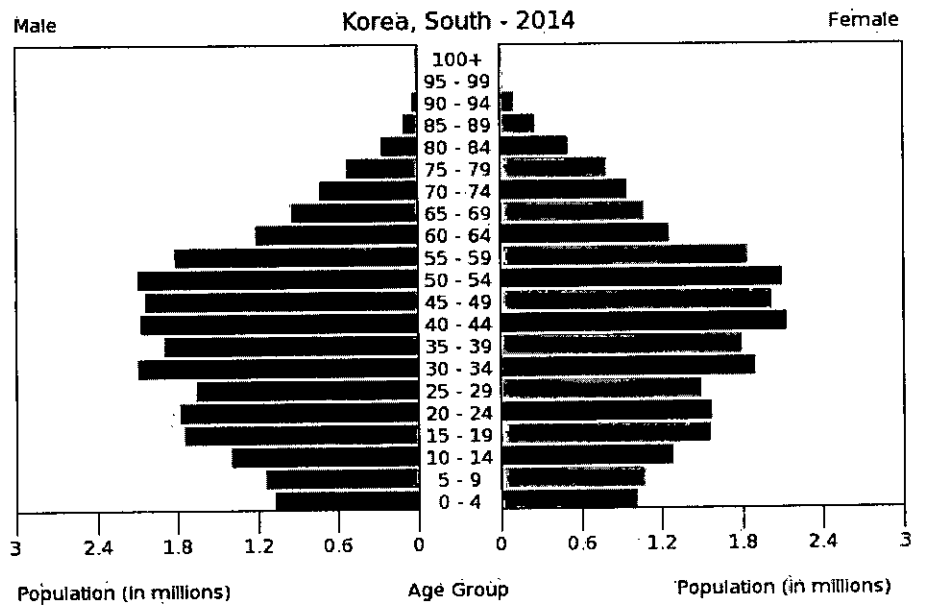
Introduction to the South Korean Healthcare System

Demographics

According to the World Fact Book developed by the Central Intelligence Agency, South Korea has a population(of about 50 million compared to the United States' population of over 318 million. With many similarities in terms of ratio of infant mortality rate, life expectancy, population below poverty line, physician density , and fertility rate, the biggest differences occur in Health expenditures, Hospital bed density, unemployment rate, and public debt. All in which the United States lacks in. Hospital bed density seems the most shocking with the South Korea having 10.3 beds per 1,000 people compared to the measly 2.9 beds per 1,000 people in the United States. South Korea's health expenditures(by % of GDP) and unemployment rate are only half of what the United States data is. As for public debt, South Korea is at 37.2% of its GDP compared to the United States at 71.2% of its GDP. Although South Korea does

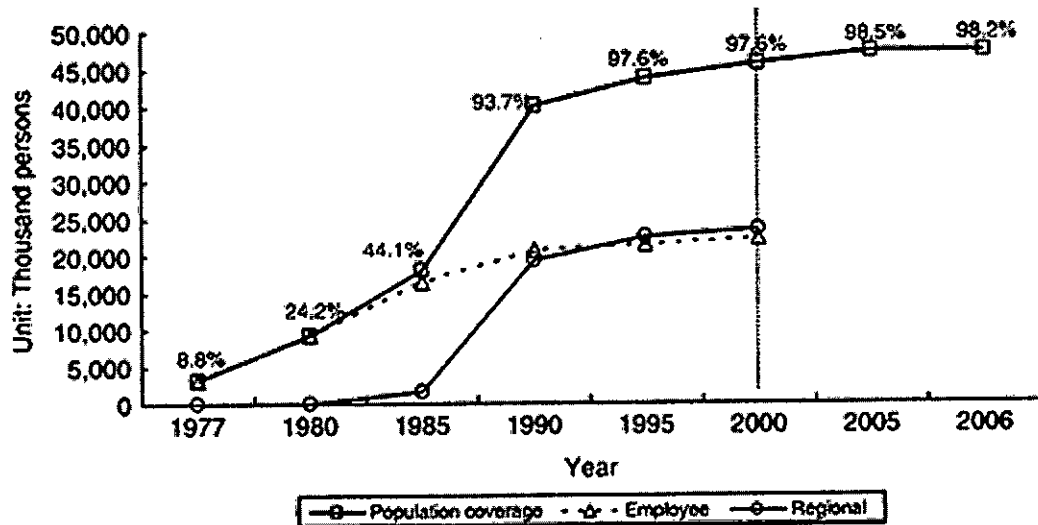
not have as much of an aging population as the United States, they are still preparing for what is to come and through their culture deal with many of the same issues we have. I believe all of these give room for improvement on the United States' behalf.

Source: CIA The World Factbook



History

In 1977, Social Health Insurance first started for workers of large corporations of more than 500 workers. This was done to easily assess employees' ability to pay. With the start of this, South Korea started a three decade long plan of creating Nationwide, Universal Health Insurance.



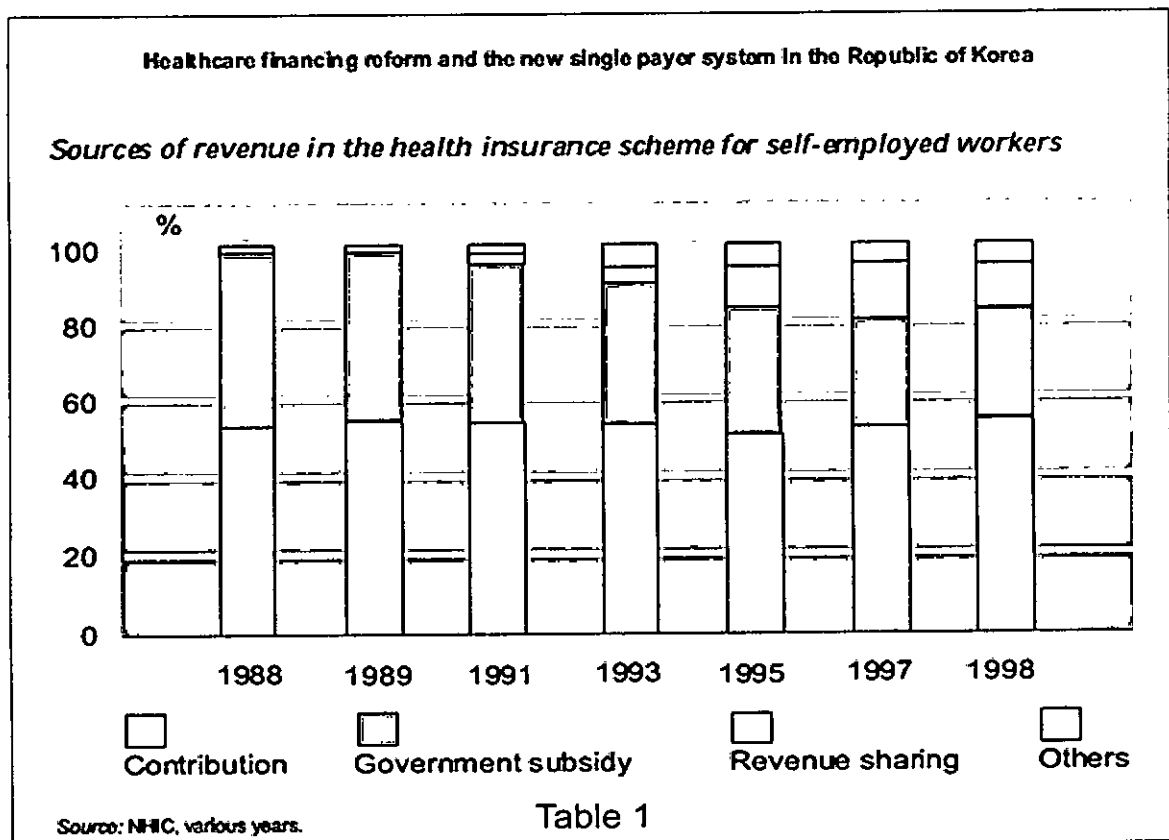
In 1988, healthcare coverage was then spread onto smaller companies as well and then extended to self-employed workers in rural areas. In 1989, self-employed workers in urban areas were also added so Universal Coverage was extended to the entire population. This was based on more than 350 not-for-profit health insurance societies for three different insured population: Industrial workers, government employees(including teachers), and self-employed workers. The government minimized its role in healthcare financing by extending health insurance incrementally. This caused low contributions and limited benefit coverage, an inefficient payment system for providers, cost inflation, financial instability, and inequity in healthcare financing. Minimum funding by government was reached due to a contribution based system with independent insurance

societies being put in place. Employees of companies and self-employed workers were covered by separate insurance societies. This avoided the problem of an insurance society dealing with different degrees of income assessment between the two groups.

In 1998, funded from general government revenue, a Medicaid program was created. This program was managed by local governments and covered the rest of the 3.5% of the population. It consisted of low contributions, limited benefit coverage, and high cost-sharing by patients. During this year, 48% of personal healthcare expenditure was still being borne by households through extremely heavy, out-of-pocket payments.

In 2000, there was a healthcare financing reform that merged all the health insurance societies into a single insurer system. This is part was due to a major concern about inequity in healthcare financing across income and occupation groups. To improve the equity in healthcare financing under the unified national health insurance system, income assessment of self-employed workers was going to be necessary. All health insurance societies were merged into one in July 2000. Before this, the national health insurance system consisted of non-profit insurance societies that were regulated by the Ministry of Health and Welfare. Each society covered a well-defined population group and beneficiaries were assigned to a society on the basis of their employment or residential area. There was no contracting between providers and insurance companies. This created no competition between medical societies and no incentives to be an active purchaser of medical care for their customers. There were three programs:

for industrial workers/dependents(36%), for teachers/government employees, and their dependents(10.4%), and for self-employed(50.1%). Employees and self-employed workers were covered by separate insurance companies. This once again helped the government minimize its own role in healthcare financing in the long run. Government provided a lot of subsidies for self-employed to decrease resistance. Although it was not comparable to employers paying of their employee's contributions, it caused healthcare expenditure to rapidly increase. Due to this, government subsidies also comparatively decreased(table 1).



This caused for an increase in contributions from the self-employed. Not all self-employed could pay, especially those in rural areas, so many of their supporting health insurance societies became financially unstable. The government created

a fiscal stabilization fund to reallocate contribution revenues across insurance societies.

Major Issues of the Healthcare Financing Reform

By the end of 2000, the National Health Insurance Corporation had combined self-employed, government employees, and industrial workers. Before the merger, self-employed workers' contributions depended on income, property, and household size whereas employee groups' contributions were only based on income. In rural areas, expenditure was high due to poor health, low population, and high elderly populations. Along with this, the members of the insurance societies often had a low ability to pay. Before the merger, many societies were too small to be able to pool the financial risks of their members efficiently, so they often had financial shocks. Also, since there was no competition between the insurance societies, they had no desire to merge and improve the risk pooling.

Benefits of the Healthcare Financing Reform

Although it was not by a huge percent, the merger did help in lowering administrative costs. All self-employed workers nationwide now had uniform contribution schedules. The monthly contributions changed and depended on income and geographical region. Wealthier people had to pay an average of \$5 more than others and less wealthy people's monthly contributions decreased by an average of \$5. Many insured industrial workers also paid lower contributions. Those with monthly incomes greater than \$1300 saw an increase in their monthly

contribution pay. Now risk pooling was on a national scale, so small societies no longer suffered. The single payer system (effects seen in Table 3), now had greater bargaining power as a monopoly purchaser relative to healthcare providers. There was better control of healthcare expenditure and better bargaining power over healthcare providers

Healthcare financing reform and the new single payer system in the Republic of Korea

Table 3 . Effect of the new (uniform) contribution schedule on monthly contributions to industrial workers' health insurance by firm size (simulation results), 2000

	Total employees	Number of firms (%)	Contribution base (won)	Contributions (won)		Change	
				Old	New	Amount of change (won)	Rate of change (%)
		170,169 (100.0)	1,467,074	40,132	40,132		
Small firms	Subtotal	145,302 (85.4)					
	0-10	89,082	1,191,643	39,193	32,531	-6,662	-17.0
	11-30	56,220	1,182,092	38,515	32,270	-6,245	-16.2
Medium-sized firms	Subtotal	23,253 (13.7)					
	31-100	18,221	1,207,162	37,046	32,955	-4,091	-11.0
	101-300	5,032	1,291,921	36,535	35,269	-1,266	-3.5
Large firms	Subtotal	1,614 (0.9)					
	301-500	757	1,539,102	38,835	42,017	3,182	8.2
	501-1000	482	1,650,426	41,446	45,056	3,610	8.7
	1001-	375	2,025,506	46,303	55,295	8,992	19.4

Source: NHIC, 2000.

Healthcare Financing

Costs of the Financing Reform

The South Korean healthcare system is funded through the mandatory contributions and out-of-pocket payments by patients. Since the government has

a role in the financing, there are many subsidies involved in the funding too. After the healthcare reform, people paid more attention to the financial status of their insurance societies before because each society was independently responsible for its own financial outcome. People paid less attention to their healthcare expenditure after the merger as it was a national risk pool, which caused a spike in healthcare utilization. The contribution and benefit coverage became a major decision on the national agenda rather than a local agenda. Adjusting contributions became less flexible and more political as well. The role of the government in healthcare financing became stronger and bigger and more attention was now given to healthcare issues that were previously neglected.

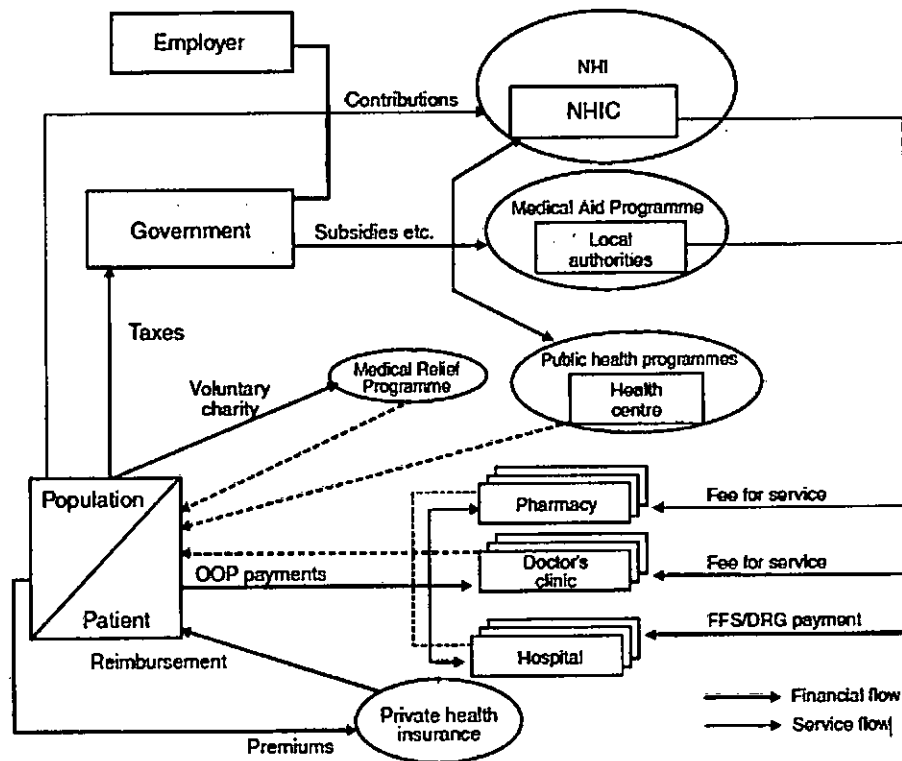
According to a review of the South Korean Health System published by the European Observatory on Health Systems and Policies, since South Korea has National Health Insurance,

"which provides universal coverage, is predominantly funded through contributions by employees, employers and the self-employed (including contributions by the state as an employer of civil servants). About 36% of funding is private, mainly in the form of direct payments and cost sharing by patients, and in the form of premiums to private health insurance schemes"(Chun, 2009).

There is also a social insurance program like Medicaid that helps supports medical services for poor called the Medical Aid Programme(MAP) which is financed by the central and local government. Another one, called the Medical Relief Programme(MRP), helps homeless people and foreign workers with

emergency medical services. There is also the Public Health Service, which covers the whole population but instead of health care, it focuses on health promotion and prevention and is publicly funded. Through the two charts below, also from the South Korean Health System review, one can gain a better understanding of the different funding sources and how they are dispersed into the system overall. The table also lists VHI, which is voluntary health insurance which one can purchase from health insurance companies, just like the ones available in the United States.

	Public			Mixed	Private
	NHI	MAP	PHS	MRP	VHI
Coverage/ entitlement	96.3% of population	3.7% of population	Whole population	Foreign workers and the homeless	Voluntary subscription
Benefits	Health care	Health care	Health promotion/ prevention	Emergency care	in cash
Organization	NHIC	NHIC/local authorities	Health centres/ health posts	Local authorities	Insurance companies
Service provider	Private/public providers	Public/private providers	Local health centres	Public/private providers	Private/public providers
Finance	Contributions/ subsidies	Public sources/ general taxation	Public sources	Public/private sources	Premiums



The section labeled population on the chart listed previously actually is divided into two sub-groups of employees and the self-employed. Employees consist of industrial employees in workplaces with more than one regular worker, civil servants, soldiers, private school teachers, and family members of employees. Self-employed consists of those in urban and rural areas who are self-employed and their family. Membership of national health insurance is mandatory but 63.7% of the population also has a policy with one or more private health insurance companies. This is part of the voluntary health insurance listed earlier. Even foreigners can be covered by the national health insurance as long as they register in the country and submit the proper paperwork regarding it. Also among those that can be covered are Korean nationals who can prove that they have lived in South Korea for more than three months. The only people denied

coverage are illegal immigrants and people who have not paid their monthly contributions for six months or longer. This sometimes causes issues for those who become not so well-off.

The Medical Aid Programme,, mentioned earlier, was originally launched in 1977 and provides the same benefits and free medical services for low income individuals. The individuals covered under MAP are also divided into two categories, called classes. Class 1 consists of households where no one is able to work, usually due to one of the following: a disability, elderly(over the age of 65), pregnancy, and people living in welfare or nursing facilities. Class 2 consists of people who welfare beneficiaries who can be employed, but are self-supporting. The only major difference between those covered under the National Health Insurance and those under the Medical Aid Programme is, those in the Medical Aid Programme Class 1 are waived copayments on inpatient services.

The regular National Health Insurance program covers an array of services such as, acute treatment, outpatient care in hospitals, pregnancy, childbirth, treatment of chronic diseases, regular checkups, eye examinations, dental treatment, homecare, and pharmaceuticals. In recent years, it has further expanded to include high technology treatments such as computed tomography(CT) scans and other more recent innovations. At the same time, as Chun et al.(2009) calls it, there is also a 'negative list', which contains treatments that are not required for the treatment of disease. The benefits are received in the form of cash and in kind, but there is no compensation for loss of income in

the case of sick leave from work. To go into more detail, the National Health Insurance also covers teeth extractions,

”prevention, health promotion, rehabilitation, pre-hospital emergency care, medical aids/devices for the disabled, organ transplantations, some complementary medicine procedures and patient information. The most relevant exclusions concern patient transportation, glasses and contact lenses, care not considered essential to daily living (e.g. plastic surgery) and high-cost services. Occupational health care and accident-related care are covered by separate industrial injury insurance. Conditions or services that are not covered include: alternative therapies and complementary medicine, minor stress with no accompanying diseases, fatigue, skin conditions (freckles, balding, moles, acne) and plastic surgery.”(Chun, 2009).

The services not covered are either paid out of pocket by the patient or can be covered through private insurance, which is called voluntary health insurance since it is extra insurance. When it comes to therapeutic services such as acupuncture, cupping, and moxibustion, they are covered by the National Health Insurance except for some oriental medicine treatments that are not as well-defined.

Benefit coverage has also been extended to cover some mental health outpatient treatment and chronic hepatitis B, but prisoners are not covered under the National Health Insurance. They are instead covered by different provisions through the Ministry of Justice. Alike, professional career soldiers are covered

under the National Health Insurance, but soldiers that are doing their mandatory military service are covered separately under the Ministry of Defense.

The source of funds for healthcare mostly stems from general taxation. Of all health expenditure, public financing makes up a little over half of the total; the other half being mostly through out-of-pocket payments with a small amount from private health insurance and charities. The revenue from taxes fully finances the Medical Aid Programme and Public Health Service, but only partially funds the National Health Insurance. Another source of funds for National Health Insurance is taxation of tobacco which initially goes to the Health Promotion Fund. The rest of the funding comes through the monthly contributions that all employees, employers, and self-employed persons must make. These contributions are calculated differently for those who are employees and self-employed. Those who are employees have their contributions calculated based on their average monthly wage, In 2009, it was 5.08% of the monthly earnings . Of this 5.08%, half of it, 2.54%, is paid by the employer. For government employees such as civil servants, soldiers, and private school teachers, the government is involved in paying the employer half of the contribution. For self-employed individuals, it is based on their household assets. They have a point system in which it takes into account their income, property, standard of living, and "participation rate in economic activities"(Chun, 2009). In terms of the long-term care programme, which is comparable to the United States' Medicare, the contributions are collected separately at a rate of 4.78% of the monthly contribution.

Voluntary or private health insurance on the other hand works as supplemental insurance and takes forms such as indemnity and life insurance. There is no substitutive voluntary health insurance in place of the national health insurance though. The premiums of this type of insurance is calculated based on the risk profiles, which take into consideration the age, gender, and health status of the applicant. There is barely any regulation in control of the price of premiums and those with pre-existing conditions are subject to getting rejected.

Through all these insurance programs, the South Korean health care system relies heavily on cost sharing by and for the consumers. Hospitals and clinics are reimbursed on a fee-per-service, but depending on the referral level the out-of-pocket payment percent differs. In the table below, the different percentages of co-pay is listed as part of the cost sharing column. Although the funding of health insurance in South Korea is public, all the hospitals and health care service institutions are owned mostly by private non-profit organizations. Less than 10% of beds are owned by public facilities and this usually consists of national university hospitals and local government hospitals. There is little to no competition in terms of price and costs when it comes to the hospitals since the cost of services is fixed through the National Health Insurance, but there is strong competition among providers to attract patients to their facilities. Hospitals and clinics alike purchase expensive equipment and luxuries to gain a competitive advantage over each other. This unfortunately leads to wastefulness of health care resources. For example, the amount of MRI and CT equipment in the country is one of the highest in the world (OECD, 2009).

Table 3.11 Out-of-pocket payments for outpatient services according to type of medical institution and location

Institution	Location	Patient status	Cost sharing (co-insurance)
Tertiary hospital	Nationwide	Normal patients	$DF^b + (TA^a - DF) \times 0.6$
		Prescription-exempt patients ^a	$DF + (TA - DF - DE^d) \times 0.6 + DE \times 0.3$
General hospital	Urban	Normal patients	$TA \times 0.5$
		Prescription-exempt patients	$(TA - DE) \times 0.5 + DE \times 0.3$
	Rural	Normal patients	$TA \times 0.45$
		Prescription-exempt patients	$(TA - DE) \times 0.45 + DE \times 0.3$
Hospital, dental hospital, oriental medicine hospital	Urban	Normal patients	$TA \times 0.4$
		Prescription-exempt patients	$(TA - DE) \times 0.4 + DE \times 0.3$
	Rural	Normal patients	$TA \times 0.35$
		Prescription-exempt patients	$(TA - DE) \times 0.35 + DE \times 0.3$
Clinic, dental clinic, oriental medicine clinic, hospital health centre	Nationwide	All patients	$TA \times 0.3$
Health centre, health subcentre, primary health care post	Nationwide	All patients	$TA \times 0.3$

Source: Decree of National Health Insurance Act.

Notes: ^aPatients who are exempted from obtaining a mandatory prescription for medicine from a physician and having it dispensed in a pharmacy; ^bDF: Doctors' fees; ^cTA: Treatment amount; ^dDE: Drug expenses.

Besides the funding sources listed above, South Korea has no other external sources of funding or parallel health systems. All voluntary and charitable funds are used by the Medical Relief Programme. Those with mental illness are insured by the National Health Insurance if they are able to pay the monthly contributions, otherwise they can be covered by the Medical Aid Programme if their income is low. There are also NGOs, religious organizations, and other donor organizations that establish and have facilities for mental health, but they do not contribute directly to the funding of mental health care services and instead run through subsidies from regional and central governments. For

long-term care, national insurance for long-term care was introduced in 2009 and users have to pay 15% of home care services and 20% of residential care services through cost sharing. People who are under the Medical Aid Programme do not have to participate in cost sharing and if they are on low income, they pay 50%.

Recommendations for the U.S. Healthcare System

When looking through the history of South Korea's journey to universal healthcare, there are some similarities in that they started with coverage to everyone, but had over 350 insurance societies to deal with the coverage. I feel as though it is similar to how the United States also has many insurance companies that charge different costs. The one big difference and an issue I think should be fixed is, hospitals in the United States can charge a variety of prices whereas in South Korea, the prices are fixed under the National Health Insurance. If prices were fixed like South Korea, perhaps the United States could solve or at least slow down the rising prices of healthcare.

If the United States were to aim for Universal Healthcare Insurance, instead of merging all insurance societies into one, I think it would be best to merge all the small insurance societies into larger insurance societies. This would be a better alternative if the main goal is to **reduce administrative costs**. Also, this can help avoid the resistance from trade unions representing personnel being cut in the long run. For example, for the state of Michigan, if there was

either one or two branches of a federal or state government run health insurance company, I think it would be more efficient for concentrating on smaller population groups to better serve their needs.

Also, instead of creating a single insurer and single risk pool for the whole nation like South Korea did, perhaps after surveying regions of the United States' demographics including ability to pay, expenditure on healthcare, etc., the United States can divide into regions or even by state to create regional insurance societies and risk pools. As the United States is a much larger country with a higher population(318.9 million vs. 50.22 million), it is important to take note of this when looking at the success of the South Korean Universal Healthcare initiative.

Another adaptation the United States can take from South Korea's Health Insurance system is, South Korea has a system of privately provided health services, but more than half of the costs are **financed by the public sector**. If the United States were to have similar sized cost sharing risk pools like mentioned above, I believe they could also achieve the same kind of success. It would help the government slowly wean off the massive debt as well with the problem of Medicare coverage for the "baby boomer" generation. Just like South Korea's government, the United States government would then have a smaller role in healthcare financing and the system would be more self-sufficient.

The healthcare policy consists of **low contributions and low benefits**. The South Korean government has since had to raise their monthly contribution amounts to support this, but has only been raised by about 1% or so and has not

created a huge burden on the citizens. I believe we can use a similar method, but with our population and country size, perhaps the low benefits would actually be covering the minimum annual checkups and other essential services that will benefit the population's health. The Affordable Care Act does have a similar provision, but it is optional according to state and it only applies to Medicaid beneficiaries. If this provision was to be expanded to be mandatory and applied to a larger portion of the population, I believe we could further encourage preventative care leading to lower costs of healthcare in the long run.

Patients are given the **freedom of choosing providers**. Since there are no contracts between insurance and providers, patients have the ease to pick any provider they would like service from. Under the single insurer system, they also have minimal competition towards cost since the pricing of procedures is basically fixed, the only main competition is with attracting patients based on quality of care and referrals. This kind of system would allow patients to better pick providers suitable to their needs.

Overall, the Affordable Care Act made some pretty good changes to our healthcare system in terms of major improvements in access and promoting prevention and higher quality care, but in terms of costs and efficiency, there is still so much room for improvement. Some areas where South Korea's Healthcare System as well as ours have similar issues to improve on are: setting a maximum limit of financial burden for low-income individuals, basing premiums and copayments by income level, expanding benefits, and creating a more efficient cost-sharing structure. As seen in Table 2, the copayments are still high

for some populations, but as of now, there are still reforms and ideas going through to improve these situations and we will just have to wait and see what innovative reforms will be made next.

TABLE 2—Mean Annual Out-of-Pocket Spending (OPS) and Percentage of Out-of-Pocket Spending Burden Ratio (OPBR) by Socioeconomic Characteristics and Number of Chronic Conditions: Korean National Health and Nutrition Survey (KNHS), 1998

Characteristic	Total Population		Number of Chronic Conditions							
			None		1		2		≥3	
	OPS	OPBR, %	OPS	OPBR, %	OPS	OPBR, %	OPS	OPBR, %	OPS	OPBR, %
Total population	215 700	4.8	68 000	1.1	231 400	4.5	261 500	5.6	419 300	11.4
Age, y										
0-19	92 900	2.3	36 600	0.8	162 500	4.0	102 600	2.3	226 700	7.8
20-44	214 200	4.6	85 900	1.7	237 500	4.5	273 700	7.0	460 100	10.5
45-65	274 100	6.5	75 700	1.6	240 800	6.2	322 100	7.4	398 600	9.4
66-79	321 500	8.2	29 200	0.7	300 000	9.7	257 000	6.5	432 200	10.0
≥80	253 700	3.5	5 500	0.1	490 900	3.1	109 100	4.0	199 800	5.2
Gender										
Male	188 000	4.5	42 000	0.8	234 200	5.6	219 200	5.8	425 600	10.1
Female	241 500	5.4	96 600	2.0	228 500	4.8	299 300	7.1	415 600	9.6
Insurance type										
Government employees and teachers	302 600	6.0	69 500	0.9	316 400	4.9	269 300	7.4	670 000	14.4
Private employees	201 200	4.1	55 100	1.0	213 500	4.3	268 900	6.0	433 100	8.3
Self-employed	216 900	5.5	78 400	1.7	234 700	6.0	262 200	6.7	395 100	10.3
Medical Aid	125 600	3.8	33 400	1.2	126 600	2.7	199 500	4.9	159 000	5.2
Other ^a	53 900	1.8	30 700	1.2	48 200	1.2	46 700	2.3	121 700	4.1
Occupation ^b										
Professional and management	250 400	7.0	86 900	1.5	424 000	12.2	313 600	10.4	174 900	4.5
White-collar	206 000	4.0	64 000	1.2	249 200	5.0	209 300	4.3	689 700	12.7
Sales	212 100	5.0	69 300	1.4	204 900	5.2	359 000	9.4	325 000	5.5
Farming and fishery	221 500	9.2	36 700	1.3	175 900	9.1	217 600	7.6	310 700	12.8
Labor	192 300	3.8	62 200	1.2	180 300	2.9	176 700	4.0	421 900	8.5
Military	155 500	2.6	10 500	0.1	373 900	6.2	65 400	2.3	0	0.0
Student	121 700	2.9	78 500	1.4	185 100	5.0	112 400	3.4	258 300	7.2
Other	252 800	5.2	71 700	1.5	247 900	4.5	300 900	6.4	485 400	10.7
Household income quintile										
1 (0-20%)	228 500	12.5	56 000	1.6	218 400	11.7	216 400	11.8	352 800	19.5
2	225 000	5.6	101 600	1.9	164 000	4.1	293 800	7.7	514 300	13.4
3	167 000	3.3	63 100	1.1	139 200	3.0	208 800	3.9	380 600	7.8
4	223 000	3.1	49 000	0.6	324 500	4.6	178 500	2.5	491 400	7.0
5 (80-100%)	232 800	2.0	65 600	0.6	274 700	2.3	413 900	3.5	369 200	3.5

Note. Values were weighted in accordance with Korean National Health and Nutrition Survey specifications. OPS in 1 000 won.
^aOther comprises those who do not receive any type of NHI or Medical Aid coverage; they are approximately 1% of the population.
^bOccupation categories were those used by the KNHS.

Appendices

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Charts

OUR HEALTHCARE REFERRAL SYSTEM IS BROKEN

There are an estimated:

- 811,512 physicians
- 191,166 dentists
- 5,082 hospitals
- 5,231 imaging centers
- 15,672 imaging homes
- 299,499 Laboratories

In the United States

90% of which are still exchanging referrals with paper (duplicate forms and faxes) which result in patient information being misplaced, lost or misfiled

Communication Gap

60%

90% of referrals are on paper

25%

25% of PCPs do not fax or email directly information from specialists, post-referral

65%

65% of specialists do not use information in their PCP paper or email referrals

Paper vs Patient

7000† people die from doctor's sloppy handwriting/year

3 out of 10 tests are reordered because results cannot be found

195k † deaths occur annually from preventable medical errors

† *Journal of the American Medical Association*

HIPAA Violations

FACT CHECK

Most organizations do not have a proper backup or reporting system for referrals

When an electronic referral system, no data is stored on paper or a local device, for example

How Device Was Breached

- Physical theft
- Combination
- Unauthorized access
- Physical loss
- Hacking IT
- Unknown

Breach Locations

- Computer / hard drive
- Hot work
- Combination
- Portable electronic device
- Paper records
- Other
- EMR

Examples:

- Few records stolen from office
- Backups of on-premise system were stolen from home
- Portable hard drive was left in a taxi when was stolen
- Hard drives from an on-premise system lost in their way to contractor for destruction

Simple, Secure Referral Exchange for Healthcare

Create your own virtual referral network and exchange patient referrals faster, more accurately, and securely than with paper duplicate forms or faxes.

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