History & Structure of the United States Government and Healthcare System

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Abstract

An expository study of the concepts and theories from the founding of the United States (U.S.) about the concept of healthcare as a right. A historical background will include the role of the federal government in the provision and delivery of healthcare services, the role of politicians and public administration in the provision as well as the delivery of healthcare services. The following discussion included the application of how the concept of efficiency, effectiveness and the Weberian Bureaucratic model impacts U.S. Healthcare. The study will include references to seminal works in the field of Healthcare, documents from U.S. government, and an exploration of the theorists and theories of the Foundations in the U.S. Healthcare System.

Keywords: Healthcare, Federalism, Bureaucratic, Pendleton Act, Social Theory, Educational Management, Social Scientific Management

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History & Structure of the U.S. Government and Healthcare System

Section 1

Introduction

The American public have been demanding more healthcare services, especially from the federal government. Some citizens believe healthcare should be a right. This study is an expository of the concepts and theories from the founding of the United States in relation to the concept of healthcare as a right, the role of the federal government in the provision and delivery of healthcare services. The role of politicians and the public administration in the provision and delivery of healthcare services will also be discussed.

Description of the Local Problem

Concepts and Theories from the founding of the United States in relation to the concept of healthcare as a right

The concept of healthcare as a right has fluctuated since the founding of the country. "For much of U.S. history, the national government and the state were minor players in the nation's health and welfare systems. National welfare program were consider unwieldy and perhaps even unconstitutional." (Jonas & Kovner 2011) The pendulum of the public opinion of health care as a right would shift in the early 20th century. "By the mid-1920 there was a growing recognition that middle-income American needed help in financing the rising cost of hospital care and increasingly high technology medicine" (Jonas & Kovner 2011). In the early 21rst century, public opinion would change again. "During the bitter 2009-2010 public debate about national health care reform specifically that the government's hand in the national health care system was already too encroaching." We have come full circle again, five years later in the

sentiment that the American public has been demanding more services from the government, specifically the federal government. It seems that public beliefs are as divided and can sway as much as Republican and Democratic administrative platforms. The concept of healthcare as a right has fluctuated over the course of history.

The role of the federal government in the provision and delivery of healthcare services

Policy Tools:

Policy tools available to the federal government in to provide and deliver health care include- authority tools, inducements, community building, hortatory and learning tools. Each state in the US has the constitutional authority to implement public health, however, the federal government influences each state. As an illustration, "the Clean Water Act requires a minimum standard for water in all states, although states are allowed to have more stringent standards" (Jonas & Kovner 2011). Despite having the ability to have more stringent standards, some states have also adopted more relaxed regulations, for example, marijuana regulations. Although marijuana is regulated in the group of Schedule I drugs, which are illegal to possess, some states allow the medicinal possession of marijuana.

Another policy tool available to the federal government to influence healthcare are Inducements & Sanctions. Inducements and Sanctions have the ability to modify public behavior that the federal government would like to encourage or curtail. For the case of inducements, the federal government can provide rebates to increase environmental conservation such as solar equipment tax credits and water conserving equipment rebates. For the case of sanctions, the federal government may impose a penalty for anyone who drives in the carpool lane.

Community building and educational learning are other methods the federal government may implement policy tools to provide healthcare. A seminal authority in community building during the 1920's was Mary Parker Follet, who pioneered community centers and embraced diversity as a way to develop solutions. "Follett defined conflict as "difference", not a negative occurrence to be avoided, but simply the interacting of different desires. Follett called for an integrated solution for resolving conflict, in which both parties emerged as "winners" Follett is quoted as saying "We should never allow ourselves to be bullied by an 'either-or.' There is often the possibility of something better than either of two given alternatives." (Cambridge 1995).

Another tool the federal government can influence behavior in providing and delivering health care is through hortatory policy. "*Hortatory* is a word used to describe a behavior or action that is encouraging." (Public Policy Instruments 2015). For example, the federal government can send a message that certain goals, such as "sustainability" are a priority. As such, they will make available university grants that promote sustainability. Other examples of hortatory policy tools include: The 1rst Lady's "Let's Move- America" program (Let'sMove.gov 2015), the Surgeon General Advisory- "Smoking may cause Lung Cancer" (1964 US Public Health Service), the Surgeon General's advisory "Step it Up! Help Make Our Communities Walkable" (US Dept. HHS 2015).

In relation to the proponents and opponents of healthcare as a right, hortatory tends to lean to the right, more of a choice to the people. Here is a flowchart to illustrate the wide diversity of opinion of healthcare by the various interest groups:

Left and Right Spectrum- proponents and opponents of health care as a right:

(Right Wing) Anarchist-->Libertarian → Tea Party → Republicans → Democrat →

Progressives → Socialist --> Communist **(Left Wing)**

There are arguments on the Right Wing/ Left Wing Spectrum that are for and against hortatory policy. Proponents include mandates (vaccines), guidelines (Healthy People Initiative), reports (ACE Report- Adverse Childhood Experiences). Opponents argue that hortatory policy encroach on the freedom on which this country is founded.

Policy tools available to the federal government in to provide and deliver health care include- authority tools, inducements, community building, learning and hortatory tools.

Policy Influence Theories

Policy influence theories that have an effect on the U.S. government and healthcare system include Elite, Group, Institutional, Political, Rational & Moral Theories. The Elite theory includes influence from the economic and cultural elect. Group theory describes influence from various sources of the left wing/ right wing spectrum. Institutional theory includes studies on the effect of groups such as the American Association of Retired People (AARP) and the American Heart Association (AHA). The federal government uses the political systems theory with the influence of inputs from the legislature as well as from public citizen demands.

Rational Choice theory involves the philosophy of Kant and Categorical imperative in which all humans would find reasonable as a guide for conduct. In relation to health care, "limiting the consumption of health care services to those situations that add that greatest value" (Jonas & Kovner 2011)..

A Moral Theory is developing in some citizens who believe that health care as a right should be a moral obligation. Morality has to do with "beliefs about what is right behavior and what is wrong behavior" " (Merriam-Webster's online 2015). An example of a moral issue

includes the case of Monique White, a woman who had contracted systemic lupus erythematosus. In a excerpt from the book *The Healing of America, a Global Quest for Better, Cheaper, and Fairer Health Care,* the author makes a succinct point "if she had lived in any of the other 12 industrialized nations, she would still be alive today. However, she was too rich to qualify for health care under welfare, but had too little money to pay for drugs and doctors and spent the last months of her life frantically writing letter and filling out forms" (T.R. Reid 2009).

The role of politicians and the public administration in the provision and delivery of healthcare services

In the post-world war era, leadership centered on influencing people to maintain focus in completing projects or create a new product. This era was influenced by leaders such as Woodrow Wilson, Fredrick Taylor and Max Weber. These seminal authorities created the "science of administration and management of people and things to accomplish a common goal of efficiency, turn a profit, and the plan to be more productive." (Sharma 2009)

In Woodrow Wilson's 1887 article "The Study of Administration" Wilson argued that administration should be a field of study, with public administration, being directly responsible to political leaders. He believed that public should be accountable to the people and that "political administration should be treated as a science and its' practitioners given authority to address issues in their respective fields" Wilson (1887).

Wilson's Dichotomy of Politics is a concept with the "Purpose to create policy, involving elected officials creating policy, laws, ordinance, versus the administration to implement policy. The administration to implement policy would involve everyone employed by a government agency such as the military, emergency first responders, social services, the department of parks and recreation.

The Spoils System vs. Merit System describes two schools of thought on how public administrative positions should be appointed or earned. President Andrew Jackson practiced a spoils system in which favoritism chose appointees. The Pendleton Act was created to revise appointments of government employees based on the merit of civil services.

Rationale of the Local Problem and Purpose of the Study

Rationale of the local problem

The purpose of the study

There is some truth to the adage "United We Stand, Divided We Fall" however, this country also prides itself with the collaborations of a diverse "Melting Pot". The sentiment that the American public has been demanding more services from the government, specifically the federal government has such diversity with as many supporters as there are critics. Perhaps that is the unique nature of a country which can divide itself into many issues, yet still be able to collaborate towards progress. An expository study of the foundations of health care can illuminate diversity on health care issues, with the hope of bringing forth a healthy dialogue and eventually lead to collaborative progress.

Section 2

Review of Literature

A literary review was conducted to establish if other studies or evaluation conducted on the U.S. healthcare system. Some sources accessed include Western University of Health Sciences Pumerantz Library Discovery Service, Google, and the National Center for Biotechnology Information/ NIH/ PubMed database.

Addressing the Local Problem

There exist pros and cons for and against US Healthcare as a right.

"Am I my brother's keeper?" is a question of social concern which has been asked since biblical times. The antithesis of the brother's keeper mentality is the law of the jungle in which "Only the strong survive". Those who cannot thrive in an environment are laid off, retrained, or left behind. However, is it a moral obligation of our nation to fend for those who are weaker, and leave "no child left behind"? No doubt, the country is as divided in this regard, as voting outcomes between democrats & republicans. It would seem a shift has occurred slightly to the efforts of public programs, which have historically seen more support during Democratic platforms, however, public opinion may change, as do administrations change.

Weberian Bureaucratic model impact U.S. Healthcare.

Efficiency and the application of Effectiveness

The effects of scientific management were instilled by the seminal theories of Frederick Winslow Taylor, a 1912 machinist. Taylor created one-day modules to train other machinists, which incorporated instruction cards to adopt standard operating procedures. (Appendix B, image of an instruction card).

Taylor's methods were put to the test at Bethlehem Steel with a gun manufacturing contract for the Spanish-American War. By accident, Taylor left a steel bar in the furnace and found out was a faster method with three times stronger steel. After this discovery, all the other steel factories followed the new, more efficient method. The scientific method of the more efficient steel process was applied to employment and management with an assembly line mentality. Evidence of this method is seen in the fast food industry with the assembly line and modular training with standardized specifications.

Another example of the beginning of scientific management and Taylor's effectiveness was with Railroad Freight in 1910. Railroads were preparing to raise rates for freight that met with much resistance from companies reliant on transportation of their goods & products. A Lawyer (Brandice) was hired by Railroad Freight to defend their position but discovered Fredrick Taylor's scientific method to promote efficiency and save Railroad Freight over a million dollars per day. Author James Sinclair wrote about a railroad employee, Henry Knoll who was able to improve workload by 60% using Taylor's method.

Despite the efficiency and improved competition, the scientific method of management would have limitations. In "Shop Management" Taylor argued there is no end to people's wants & needs- that it is management's' job to maintain the company. Management vs. employee interest conflicts arose. In one instance, a night manager took a stopwatch to the worker (molders) to which the workers declared as unconstitutional and stopped working. That is a simple example of conflicts that can occur with a strict approach to scientific management. A modern day analogy would be similar to Wall Street management insisting that investment consultants integrate Real Estate Investment Trusts into the portfolio, regardless of whether the consultant's agree it was in the best interest of their clients.

Max Weber believed in a formal and rigid structure of organization known as bureaucracy, a non-personal view of the organization. "First, it is based on the general principle of precisely defined and organized across-the-board competencies of the various offices. These competencies are underpinned by rules, laws, or administrative regulations" (Waters, edited and translated,1976). Weber wrote that the modern bureaucracy in both the public and private sector relies on the following principles:

1. A rigid division of labor is established which clearly identifies the regular tasks and duties of the particular bureaucratic system.
2. There are firmly established chains of command, and the duties and capacity to coerce others to comply is described by regulation.
3. Regular and continuous execution of the assigned duties is undertaken by hiring people with particular qualifications that are certified.

Weber notes that these three aspects "constitute the essence of bureaucratic administration in the public sector. In the private sector, these three aspects constitute the essence of a bureaucratic management of a private company. (Waters, edited and translated 1976)

Section 3

Description of Proposed Methods and Procedures

The Research Question

It has become more prevalent that the belief that healthcare for everyone is a right of being in the United States. Although the rest of the world has adopted such a stance with 100% government-based health insurance system (Gawande 2009), one must contemplate whether this is the right system for the US. Socialist countries enjoy free health care, but some have 100% taxation as well. The US has made great strides in medical technology, yet when compared per capita preventable diseases such as heart attack, stroke, diabetes, and bacterial infection, the U.S. has the highest mortality rate. (OEDC Health Data 2010). This study explores public perception, concepts, and theories that shed light and introduce dialogue to the belief of healthcare as a right.

Research Methodology

Seminal works in the field of Manufacturing, Govt. assisted urban planning & Healthcare

Expository discussion of the seminal authority includes advocates and critics of the government's role in assisted manufacturing, urban planning, and healthcare. The scientific approach was applied to manufacturing, which prior to that period was not as monitored. "A fixed price was paid for this work, whether there was much or little metal to be removed", Frederick Taylor goes on to say "A careful time study, however, convinced the writer that for the reasons given above most of the men failed to do their best". To correct their unsatisfactory efforts, Taylor would instill certain constraints "In place of the singles rate and time for all the work done at a setting, the writer subdivided tire-turning to a number of short operations. The effect of this subdivision was to increase the output, with the same men, method and machines at least thirty-three percent" Shop Management – Taylor (1911)

Such introduction of Science into management would influence other areas to which government, rather than relying on the sole authorities, would utilize the knowledge in an advisory role. In *Cities of Tomorrow- An Intellectual History of Urban Planning and Design Since 1880. The practice of city and regional city planning*, Peter Hall provides a critical history of planning in theory and practice as well as underlying social-economic challenges and opportunities, as an advisor to governments for urban planning. Hall (1997)

Documents from U.S. government

Foundational documents that influence health care are found in the Declaration of Independence (1776), Articles of Confederation (1777) and the Constitution (1787). Articles of

the Constitution include Article I – Legislative Branch**,** Article II – Executive Branch**,** Article III – Judicial Branch**,** Article IV – States Rights**,** and Article V – the Amendment Process. Constitutional Amendments require 2/3 of both houses and ¾ of all states. Additional articles of the Constitution include Article VI – Constitution is the Law of the Land**,** Article VII – Ratification. The Constitution was signed in 1787 but ratified by New Hampshire (9 of the 13 states) in 1788**.** During this time, "republican" referred to a representative republic form of government (elected representatives representing the people) ruled by the constitution (as opposed to a democracy). The Bill of Rights includes the first 10 Amendments to the Constitution with the 10th having specific relevance to US Healthcare. "The 10th Amendment to the U.S. Constitution gives states the primary responsibility for public health" (Jonas & Kovner 2011)

Exploration of the theories of the Foundations in the U.S. Healthcare System.

A Foundational Concept in the US Healthcare system is Federalism. Dual Federalism exists in a person who is both a citizen of the country and a citizen of the State. Cooperative Federalism is a concept of federalism in which national, state and local governments work cooperatively and to solve problems. (The New Deal, boundless.com 2015)

Further insight to the foundation of a citizen's belief of healthcare as a right are illuminated by Group Theory and the affiliation of the source. As a general guideline, one can propose the following with respect to Group Theory:

Left and Right Spectrum- proponents and opponents of health care as a right

less government control **(Right Wing)** Anarchist-->Libertarian → Tea Party → Republicans → Democrat → Progressives → Socialist --> Communist **(Left Wing)** more government

Conclusion

An expository study of the concepts and theories from the founding of the United States in relation to the concept of healthcare as a right, the role of the federal government in the provision and delivery of healthcare services, and the role of politicians and the public administration in the provision and delivery of healthcare services.

The following includes perspective, proposed recommendations, limitations, and disclosures.

Perspective

With respect to the U.S. Government and Healthcare system, one can apply global comparable. Overall, the U.S. has the highest rate of preventable deaths that would be amenable to healthcare intervention (deaths among people less than 75 years old that are from heart attacks, strokes, diabetes and bacterial infections); the U.S. has 96 such deaths per 100,000 people as compared to the United Kingdom 83, all the way down to France's 55 deaths per 100,000. (Source: OECD Health Data Oct. 2010). Appendix C

Global Perspective- Federally-funded Healthcare existent in the majority of Counties (Gawande 2009). "Nearly every other country in the analysis had a 100% government-based health insurance system, except for Germany at 89.5% (the U.S. has just 27.4% of the population covered through public-sector programs)." Possible solutions can include A single payer system, similar to healthcare systems can streamline clinical protocols to avoid the unnecessary procedures, as well as incentivizing prevention. "As the single payer, the government needs to prevent disease to maintain a budget, rather than having the incentive of making money from managing a disease

(doing procedures, ordering tests) but not preventing it. It can also be bulk-purchase goods and supplies and help equalize salaries between current public sector rates and private sector networks that feed off of mutual referral systems and inflated pricing." (Gawande 2009)

Understanding existing programs are key to the implementation of a new project and innovative techniques. China utilized existing Special Administrative Regions (SARS) and the United Kingdom implemented Special Active Zones within existing National Health Service and Sports England channels to encourage physical activity by implementing Free Outdoor Gyms.

One may ponder the question of the rest of the World as having the correct health care solution, or that the US is number one in providing healthcare. Although we have achieved top status in many areas, such as medical technological advances, we have also become number one in per capita spending, as well as having the highest per capita preventable disease such as heart disease, diabetes, obesity, mental depression and suicide rates. The U.S. Healthcare system should try to continue to progress Healthy People 2020 Targets, such as physical activity, and improve on targets with little change and in some cases, deterioration, such as in the areas of Obesity & Mental Health. (March 2014 HHS, 2012 Progress Update) Appendix A.

Recommendations

Preventative Health Medicine as Potential Solution

One proposed solution to improve Healthcare is an increased focus on preventative medicine and wellness. A healthy person becomes not a debt burden, but a Health & Wealth ReGenerator (increased productivity, less sick days) → track health, metabolism, with a record of Exercise Accountability & Improvement (this can be done via FiTGiGM tracking applications (proof of exercise, individual metabolism recording for tax credits → reducing the amount of visits to the

Hospital, drug usage, and Dangerous multiple Imaging (Radiology Scans). (Fit2Grid Foundation 2015). I propose a broad equation to ameliorate the two worst Mental & Physical Health Indicators of Healthy People 2020 Initiative:

Equation: $\frac{\textbf{Physical Activity}}{\textbf{Diabetes + Obesity + Depression + Suicide}}$ = **Healthy People increase**

(Lim 2015)

The equation correlates an inverse relationship of Physical Activity vs. Diabetes, Obesity, Depression and Suicide with resultant Health People. This concept was illuminated in the study: *A plan to improve the worst Healthy People 2020 Leading Health Indicators*. The study describes a method for the provision and delivery of healthcare through preventative medicine, which can be achieved through a 3 point cooperative between Business & Government interests, as well as innovative approaches which have proven successful globally. (Lim 2015)

Limitations & Error Disclosure

Variables such as the prior health condition of participants of those surveyed, as well as genetics and environmental habitat, were not conducted thus may be factors for consideration to clarify the variability in worsening Mental & Physical Indicators. The survey method is based on the accuracy of the participant answers as well as polling procedures may vary, thus will provide an average or estimate rather than actual improvements. Additionally, the data may not have included the entire population, for example, initial pilot program & research studies. Thus any inference may be premature. Author of the study "*A Plan to Improve the Worsening Health Indicators of Healthy People 2020 Targets: Three Point Plan- Special Active Zones, Pro-Active City's and the Free Energy Fitness Foundation* is an officer of the Fit2Grid.org.

Although planning is important for a project, subsequent steps are vital to success. These steps include: (promoting dialogue, initiation, planning, financing & implementation). Several of these areas will be researched, studied and developed to focusing on program strategies and activities.

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Appendix A

HHS Leading Health Indicators

Healthy People 2020 Leading Health Indicators: Progress Update

✓ Target met[1] + Improving[2] ○ Little or no detectable change[3] − Getting worse[4]

Progress Toward Target[5,6]	Leading Health Topic and Indicator	Baseline (Year)	Most Recent (Year)	Target
	Access to Health Services			
○	AHS-1.1 Persons with medical insurance (percent, <65 years)	83.2% (2008)	83.1% (2012)	100.0%
○	AHS-3 Persons with a usual primary care provider (percent)	76.3% (2007)	77.3% (2011)	83.9%
	Clinical Preventive Services			
+	C-16 Adults receiving colorectal cancer screening based on most recent guidelines (age adjusted, percent, 50–75 years)	52.1% (2008)	59.2% (2010)	70.5%
+	HDS-12 Adults with hypertension whose blood pressure is under control (age adjusted, percent, 18+ years)	43.7% (2005–08)	48.9% (2009–12)	61.2%
○	D-5.1 Persons with diagnosed diabetes whose A1c value is >9 percent (age adjusted, percent, 18+ years)	17.9% (2005–08)	21.0% (2009–12)	16.1%
+	IID-8 Children receiving the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and PCV vaccines (percent, aged 19–35 months)	44.3% (2009)	68.5% (2011)	80.0%
	Environmental Quality			
✓	EH-1 Air Quality Index (AQI) exceeding 100 (number of billion person days, weighted by population and Air Quality Index value)	2,237 (2006–08)	1,252 (2009–11)	1,980
✓	TU-11.1 Children exposed to secondhand smoke (percent; nonsmokers, 3–11 years)	52.2% (2005–08)	41.3% (2009–12)	47.0%
	Injury and Violence			
+	IVP-1.1 Injury deaths (age adjusted, per 100,000 population)	59.7 (2007)	57.1 (2010)	53.7
✓	IVP-29 Homicides (age adjusted, per 100,000 population)	6.1 (2007)	5.3 (2010)	5.5
	Maternal, Infant, and Child Health			
+	MICH-1.3 Infant deaths (per 1,000 live births, <1 year)	6.7 (2006)	6.1 (2010)	6.0
+	MICH-9.1 Total preterm live births (percent, <37 weeks gestation)	12.7% (2007)	11.5% (2012)	11.4%
	Mental Health			
−	MHMD-1 Suicide (age adjusted, per 100,000 population)	11.3 (2007)	12.1 (2010)	10.2
−	MHMD-4.1 Adolescents with major depressive episodes (percent, 12–17 years)	8.3% (2008)	9.1% (2012)	7.5%
	Nutrition, Physical Activity, and Obesity			
✓	PA-2.4 Adults meeting aerobic physical activity and muscle-strengthening Federal guidelines (age adjusted, percent, 18+ years)	18.2% (2008)	20.6% (2012)	20.1%
○	NWS-9 Obesity among adults (age adjusted, percent, 20+ years)	33.9% (2005–08)	35.3% (2009–12)	30.5%
○	NWS-10.4 Obesity among children and adolescents (percent, 2–19 years)	16.1% (2005–08)	16.9% (2009–12)	14.5%
○	NWS-15.1 Mean daily intake of total vegetables (age adjusted, cup equivalents per 1,000 calories, 2+ years)	0.8 (2001–04)	0.8 (2007–10)	1.1

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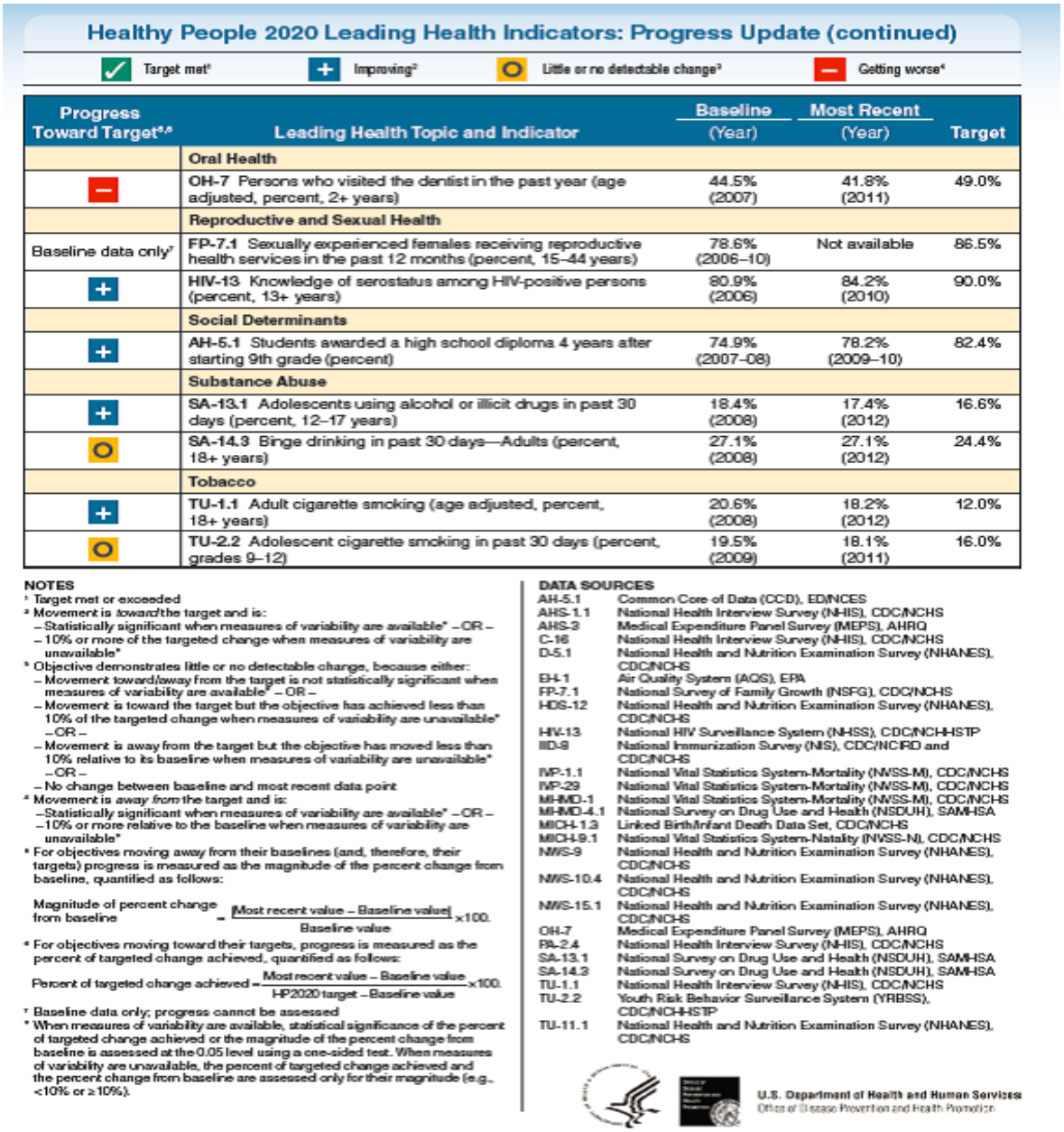

Healthy People 2020 Leading Health Indicators: Progress Update (continued)

✓ Target met[1] | + Improving[2] | O Little or no detectable change[3] | – Getting worse[4]

Progress Toward Target[5,6]	Leading Health Topic and Indicator	Baseline (Year)	Most Recent (Year)	Target
	Oral Health			
–	OH-7 Persons who visited the dentist in the past year (age adjusted, percent, 2+ years)	44.5% (2007)	41.8% (2011)	49.0%
	Reproductive and Sexual Health			
Baseline data only[7]	FP-7.1 Sexually experienced females receiving reproductive health services in the past 12 months (percent, 15–44 years)	78.6% (2006–10)	Not available	86.5%
+	HIV-13 Knowledge of serostatus among HIV-positive persons (percent, 13+ years)	80.9% (2006)	84.2% (2010)	90.0%
	Social Determinants			
+	AH-5.1 Students awarded a high school diploma 4 years after starting 9th grade (percent)	74.9% (2007–08)	78.2% (2009–10)	82.4%
	Substance Abuse			
+	SA-13.1 Adolescents using alcohol or illicit drugs in past 30 days (percent, 12–17 years)	18.4% (2008)	17.4% (2012)	16.6%
O	SA-14.3 Binge drinking in past 30 days—Adults (percent, 18+ years)	27.1% (2008)	27.1% (2012)	24.4%
	Tobacco			
+	TU-1.1 Adult cigarette smoking (age adjusted, percent, 18+ years)	20.6% (2008)	18.2% (2012)	12.0%
O	TU-2.2 Adolescent cigarette smoking in past 30 days (percent, grades 9–12)	19.5% (2009)	18.1% (2011)	16.0%

NOTES

[1] Target met or exceeded

[2] Movement is *toward* the target and is:
- Statistically significant when measures of variability are available* – OR –
- 10% or more of the targeted change when measures of variability are unavailable*

[3] Objective demonstrates little or no detectable change, because either:
- Movement toward/away from the target is not statistically significant when measures of variability are available* – OR –
- Movement is toward the target but the objective has achieved less than 10% of the targeted change when measures of variability are unavailable* – OR –
- Movement is away from the target but the objective has moved less than 10% relative to its baseline when measures of variability are unavailable* – OR –
- No change between baseline and most recent data point

[4] Movement is *away from* the target and is:
- Statistically significant when measures of variability are available* – OR –
- 10% or more relative to the baseline when measures of variability are unavailable*

[5] For objectives moving away from their baselines (and, therefore, their targets) progress is measured as the magnitude of the percent change from baseline, quantified as follows:

$$\text{Magnitude of percent change from baseline} = \frac{|\text{Most recent value} - \text{Baseline value}|}{\text{Baseline value}} \times 100.$$

[6] For objectives moving toward their targets, progress is measured as the percent of targeted change achieved, quantified as follows:

$$\text{Percent of targeted change achieved} = \frac{\text{Most recent value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100.$$

[7] Baseline data only; progress cannot be assessed

* When measures of variability are available, statistical significance of the percent of targeted change achieved or the magnitude of the percent change from baseline is assessed at the 0.05 level using a one-sided test. When measures of variability are unavailable, the percent of targeted change achieved and the percent change from baseline are assessed only for their magnitude (e.g., <10% or ≥10%).

DATA SOURCES

AH-5.1	Common Core of Data (CCD), ED/NCES
AHS-1.1	National Health Interview Survey (NHIS), CDC/NCHS
AHS-3	Medical Expenditure Panel Survey (MEPS), AHRQ
C-16	National Health Interview Survey (NHIS), CDC/NCHS
D-5.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
EH-1	Air Quality System (AQS), EPA
FP-7.1	National Survey of Family Growth (NSFG), CDC/NCHS
HDS-12	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
HIV-13	National HIV Surveillance System (NHSS), CDC/NCHHSTP
IID-9	National Immunization Survey (NIS), CDC/NCIRD and CDC/NCHS
IVP-1.1	National Vital Statistics System-Mortality (NVSS-M), CDC/NCHS
IVP-29	National Vital Statistics System-Mortality (NVSS-M), CDC/NCHS
MHMD-1	National Vital Statistics System-Mortality (NVSS-M), CDC/NCHS
MHMD-4.1	National Survey on Drug Use and Health (NSDUH), SAMHSA
MICH-1.3	Linked Birth/Infant Death Data Set, CDC/NCHS
MICH-9.1	National Vital Statistics System-Natality (NVSS-N), CDC/NCHS
NWS-9	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
NWS-10.4	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
NWS-15.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
OH-7	Medical Expenditure Panel Survey (MEPS), AHRQ
PA-2.4	National Health Interview Survey (NHIS), CDC/NCHS
SA-13.1	National Survey on Drug Use and Health (NSDUH), SAMHSA
SA-14.3	National Survey on Drug Use and Health (NSDUH), SAMHSA
TU-1.1	National Health Interview Survey (NHIS), CDC/NCHS
TU-2.2	Youth Risk Behavior Surveillance System (YRBSS), CDC/NCHHSTP
TU-11.1	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS

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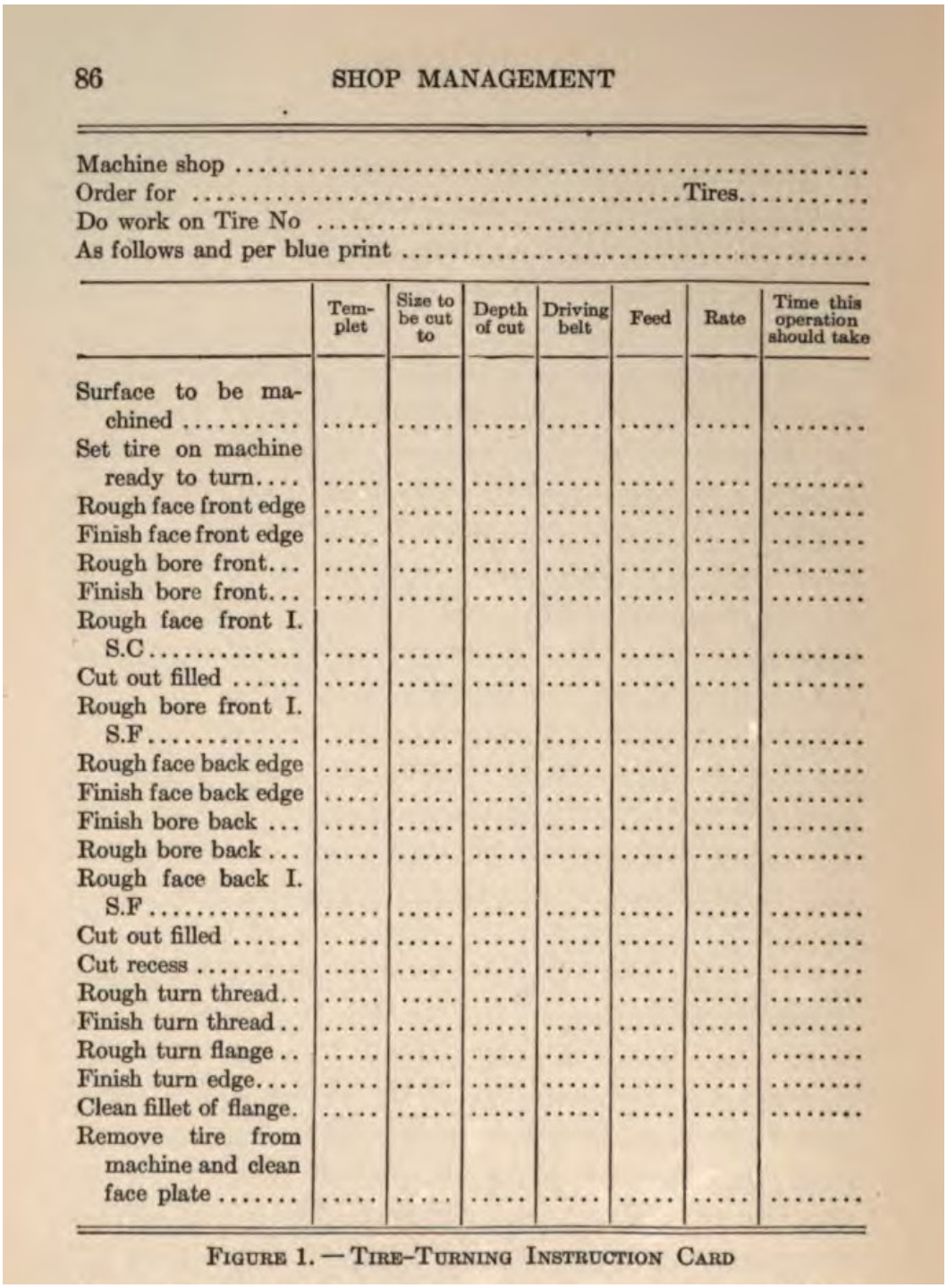
Office of Disease Prevention and Health Promotion

(March 2014). Retrieved September 11, 2015, from

http://www.healthypeople.gov/sites/default/files/LHI-ProgressReport-ExecSum_0.pdf

Appendix B

Taylor's Instruction Card



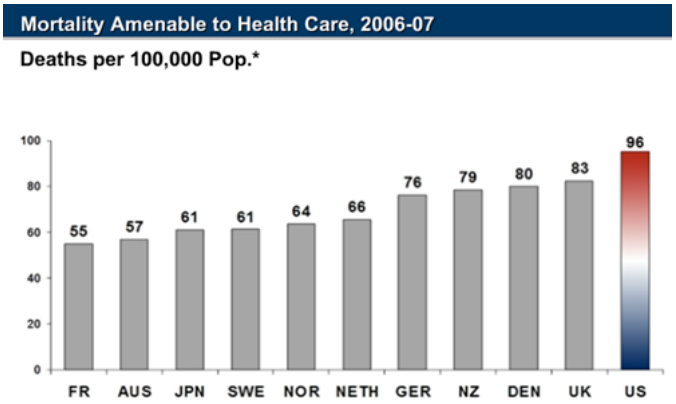
86 SHOP MANAGEMENT

Machine shop .....
Order for .....Tires.....
Do work on Tire No .....
As follows and per blue print .....

	Templet	Size to be cut to	Depth of cut	Driving belt	Feed	Rate	Time this operation should take
Surface to be machined	.....	.....	.....	.....	.....	.....	.....
Set tire on machine ready to turn....	.....	.....	.....	.....	.....	.....	.....
Rough face front edge	.....	.....	.....	.....	.....	.....	.....
Finish face front edge	.....	.....	.....	.....	.....	.....	.....
Rough bore front...	.....	.....	.....	.....	.....	.....	.....
Finish bore front...	.....	.....	.....	.....	.....	.....	.....
Rough face front I. S.C.....	.....	.....	.....	.....	.....	.....	.....
Cut out filled	.....	.....	.....	.....	.....	.....	.....
Rough bore front I. S.F.....	.....	.....	.....	.....	.....	.....	.....
Rough face back edge	.....	.....	.....	.....	.....	.....	.....
Finish face back edge	.....	.....	.....	.....	.....	.....	.....
Finish bore back ...	.....	.....	.....	.....	.....	.....	.....
Rough bore back ...	.....	.....	.....	.....	.....	.....	.....
Rough face back I. S.F.....	.....	.....	.....	.....	.....	.....	.....
Cut out filled	.....	.....	.....	.....	.....	.....	.....
Cut recess	.....	.....	.....	.....	.....	.....	.....
Rough turn thread..	.....	.....	.....	.....	.....	.....	.....
Finish turn thread..	.....	.....	.....	.....	.....	.....	.....
Rough turn flange ..	.....	.....	.....	.....	.....	.....	.....
Finish turn edge....	.....	.....	.....	.....	.....	.....	.....
Clean fillet of flange.	.....	.....	.....	.....	.....	.....	.....
Remove tire from machine and clean face plate	.....	.....	.....	.....	.....	.....	.....

FIGURE 1. — TIRE-TURNING INSTRUCTION CARD

Appendix C- Health Spending in Developed Countries



Death x Capita $ Multiple	Total Health Spending		
	Per capita[c]	Percent GDP	Average annual real growth rate per capita: 1998–2008
Australia 205	$3,353[a]	8.5%[a]	3.6%[a]
Canada 198	$4,079[e]	10.4%[e]	3.4%[e]
Denmark 280	$3,540[a]	9.7%[a]	3.5%[a]
France 198	$3,696	11.2%	2.3%
Germany 281	$3,737	10.5%	1.8%
Netherlands 264	$4,063[e]	9.9%[e]	4.1%[e]
New Zealand 205	$2,683	9.9%	4.4%
Norway 320	$5,003[e]	8.5%[e]	0.8%[e]
Sweden 207	$3,470	9.4%	3.9%
Switzerland 198	$4,627[e]	10.7%[e]	1.9%[e]
United Kingdom 249	$3,129	8.7%	4.9%
United States **768**	$7,538	16.0%	3.4%
OECD median 198	*$2,995*	*8.7%*	*3.9%*

Exhibit 1. Health Spending in Select OECD Countries, 2008

2007.
[c] Adjusted for differences in cost of living.
[e] Estimate.
Source: OECD Health Data 2010 (Oct. 2010).
Note: PPP = purchasing power parity—an estimate of the exchange rate required to equalize the purchasing power of different currencies, given the prices
of goods and services in the countries
concerned. Source: OECD Health
Data 2010 (Oct. 2010).

Exhibit 2. International Comparison of Spending on Health, 1980–2008

Average spending on health per capita ($US PPP)

Total expenditures on he as percent of GDP