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Red Meat Overconsumption Prevention and Control Act

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Red Meat Overconsumption Prevention and Control Act

By

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Advisor: Paul Root Wolpe, PhD

An abstract of
A thesis submitted to the Faculty of the
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Abstract

Red Meat Overconsumption Prevention and Control Act By Cynthia Elizabeth Drake

Colorectal cancer is associated with red meat overconsumption and is the second leading cause of death by cancer in the United States. Red meat is also linked to obesity and cardiovascular disease. Colorectal cancer is of public health concern, raising morbidity and mortality. Public health programs must work to decrease morbidity and mortality. A public health program should be implemented to decrease the incidence of colorectal cancer by decreasing consumption of red meat. A public health initiative to label red meat products with this consumer information is ethically sound, primarily justified through the utilization of two public health ethics frameworks: "An Ethics Framework for Public Health" by Nancy Kass and "Principles of the Ethical Practice of Public Health" written by the Public Health Leadership Society.

The public health initiative examined here is in the form of federal policy. Ethical justifications for labeling red meat are discussed through the federal policy framework using adapted language from the Family Smoking Prevention and Tobacco Control Act. Taxation is also considered throughout the frameworks and models, but is not here justified. This thesis finds that labeling as a public health initiative is an appropriate mechanism to empower the consumer with more information and minimal burden and is congruent with the ethical practice of public health.

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 $Food \mid \! fo\bar{o}d \! \mid$

noun

1. any nourishing substance that is eaten, drunk, or otherwise taken into the body **to sustain life**, provide energy, promote growth, etc.

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1

An Act

To protect the public's health by appropriately directing the authority of the Food and Drug Administration to label of red meat products and address red meat's correlation with colorectal cancer.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.

Red Meat Overconsumption Prevention and Control Act

Bill:

Sec. 1. Table of Contents

Sec. 1. Table of Contents.

Sec. 2. Findings.

Sec. 3. Purpose.

Sec. 2. Findings

- 1. The overconsumption of red meat products by the Nation's public is a dietary practice of considerable proportions.¹
- Considerable consensus is found among the scientific and medical fields red meat overconsumption is a dangerous practice, causes cancer, and is associated with the disease of obesity.
 - a. Red meat overconsumption is associated with colorectal cancer.²

- b. Colon cancer is the second leading cause of death by cancer in this Nation.
 Colon cancer is detrimental to the public's health, causes unnecessary
 suffering, and is costly to the Nation's health care system. Cancer is the
 second leading cause of death in the Nation.²
- c. Red meat product overconsumption correlates to increased risk of cardiovascular disease, the first leading cause of death in the Nation.³
- 3. Red meat overconsumption is destructive to the public's health.⁴
- Limiting red meat consumption is congruent with the Ethical Practices of Public Health.⁵
- 5. Limiting red meat consumption is congruent with multiple public health ethics frameworks adopted by public health agencies.⁶
- Limiting red meat consumption is congruent with the national Goals for Cardiovascular Health Promotion and Disease Reduction.⁶
- 7. Limitation of red meat consumption via product labeling best protects the autonomy of the peoples of the Nation.⁷
- 8. Red meat advertising is extensive and encourages limitless consumption of red meat.⁷
- 9. No appropriate restrictions currently exist to curb overconsumption of red meat.⁷
- 10. The distribution and marketing of red meat significantly affects health care and other costs attributable to the detriments of red meat's overconsumption.⁸
- 11. Colorectal cancer health care costs \$6.5 billion dollars annually.⁸
- 12. In 2005, health care costs associated with obesity of the Nation are estimated near \$190 billion. That figure is expected to rise to at least \$238 billion by 2030.

- 13. The Food and Drug Administration (FDA) is a regulatory agency with the scientific expertise to identify harmful substances in products to which consumers are exposed. The FDA's duties include designing standards to limit exposure to those substances, and to evaluation scientific studies supporting claims about the safety of products. To date, the detrimental effects of the overconsumption of red meat on the public's health have been largely ignored by the Food and Drug Administration. This bill requires more appropriate standards of labeling to be enforced by the Food and Drug Administration.
 - a. Federal and State governments are not currently directing their collective authority and resources to address comprehensively the public health detriment of the overconsumption of red meat products.
 - b. The Food, Drug, and Cosmetic Act enables the Food and Drug Administration's authority to label products available to the Nation's public.⁹

Sec. 3. Purpose.

The purposes of this proposal are—

- (1) To provide standards for the authority of the Food and Drug Administration to label red meat products.
- (2) To legally recognize the overconsumption of red meat products as corrosive to the public's health.
- (3) To impose appropriate labeling practices on the red meat industry.

- (4) To more wholly align the Food and Drug Administration's authority with the Principles of the Ethical Practices of Public Health and other frameworks.
- (5) To more appropriately direct the authority of the Food and Drug Administration standards controlling the manufacture, distribution and labeling of red meat products.
- (6) To promote the public's health by informing consumers of a cancer causing agent partially thousands of annual deaths in the Nation due to colon and rectal cancer.
- (7) To promote the public's health by labeling red meat, overconsumption of which is a precursor to cardiovascular disease risk, obesity, and death.

Chapter 1: Overconsumption

What is the American diet? How has this diet contributed to our unhealthy population? Identified as the "western diet," our routine diet is primarily comprised of animal products, meat, and animal fats. Last year, we ate, on average, 185 pounds of meat. The most common food in our dietary pattern, is animal products, with a 0.39 principal component coefficient. With a coefficient of only 0.03, vegetables barely rank as principle components of the Western diet as the thirteenth most correlative food group. Colon cancer is associated with red meat consumption and is the second leading cause of death by cancer in the United States. 2,3,4,5

Therefore, legislative and other public health efforts shaping the American diet have broad effects on our physical and societal food environments and our health within them. Legislative efforts to better the Nation's health include regulation of cigarettes, alcohol, trans fats, and sugar-sweetened beverages. The Red Meat Overconsumption Prevention and Control Act joins these legislative, public health efforts by limiting red meat overconsumption in the United States. Warning labels act as a preventative measure. Labeling best protects autonomy (See Chapter 7). Taxation, though not included in the legislative proposal, is a mechanism of consumer control to consider. The possible benefits of such legislation are great in scope and importance: potentially contributing to decreasing obesity rates, decreasing the co-morbidities of obesity, decreasing cardiovascular diseases, and finally, decreasing rates of colorectal cancer. Limiting measures, rather than prohibition measures best protects self-determination of consumers. Though many find that meat is not nutritionally necessary for today's physical and social food environment, it is part of the American diet, part of cultural traditions, and a large

part of corporate industry. Explored further in Chapter 4 is whether our cultural traditions of meat-eating and our methodologies for meat procurement have become maladaptive and destructive to our social, biotic, and abiotic environments. Red meat is part of our governmental issued nutritional standards, though such standards have faced criticism for delayed responses to new scientific inquiries and findings related to the American diet. Therefore, the burdens on consumer agency are minimized by recognizing that meat will continue to play a role in the American diet. Limited here is the seemingly limitless consumption of red meat by American consumers.

"Red meat" is defined as animal products that are red in color before they are cooked; the category includes animal flesh from cattle, goats, pigs, deer, and lamb. Red meat is proven to correlate with bowel, or colorectal, cancer. Departments of health recommend eating no more than 70 grams of red and processed meat a day.⁶

Field leaders have found that those Americans who consume one serving of red meat per day "had a 13 percent increased risk of mortality, compared with those who were eating very little meat. And processed meats raised the risk higher, to about 20 percent increased risk of death from diseases including cancer and heart disease."

Immediate action is needed by the Nation's government to address a more appropriate labeling of red meat. This proposal utilizes public health frameworks and recent scientific inquiry into the consumption of red meat to justify implementation of the Red Meat Overconsumption Prevention and Control Act.

Chapter 2: Red Meat's Association with Colorectal Cancer

Colorectal cancer is associated with red meat consumption and is the second leading cause of death by cancer in the United States. ^{11,12,13,14} An initiative to limit red meat overconsumption with warning labels will benefit the public's health. A high prevalence of colorectal cancer increases morbidity and mortality; colorectal cancer causes suffering and death. ¹³ Public health initiatives' primary goals are to decrease morbidity and mortality. ⁴ A public health informing consumers of the health concerns associated with red meat overconsumption is ethically sound; it is respectful of consumer autonomy as well as consistent with the principles of the ethical practice of public health (See Chapters 6 & 7). However, no public health initiative limiting self-determination is justifiable without sound scientific backing for its implementation. ⁴ Therefore, the findings of red meat's correlation with colorectal cancer are discussed here.

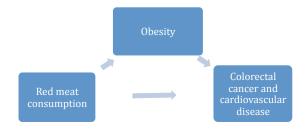
Amid controversy, and some dissent, there is significant evidence suggesting a positive correlation of red meat consumption and incidence of colorectal cancer. ¹⁴ The American Cancer Society guidelines recommend limiting processed and red meats in accordance with the American Institute of Cancer research. The World Cancer Research fund recommends limitation of red meat and exclusion of processed meats. Large scale U.S. studies supporting these recommendations include the Polyp Prevention Trial, and the National Institute of Health-American Association of Retired Persons (NIH-AARP) Diet and Health Study. ¹⁴ International studies drawing the same conclusion include the Japan Public Health Center-based Prospective Study (JPHC) and a study with Jordanian participants published in Asian Pacific Journal of Cancer Prevention. ¹⁴

A significant voice of dissent to those findings is exemplified by the Multiethnic Cohort Study (MEC), published in the *International Journal of Cancer*. When researchers adjusted for mitigating variables such as lifestyle and habit involving physical activity, the correlation weakened and virtually disappeared. With a sample size of more than 210,000 participants ranging from 45 and 75 years of age, researchers found a correlations between red meat consumption and smoking, obesity, and colorectal cancer among other lifestyle factors and illnesses. Though this research finding seems to be an outlier according to epidemiological studies, this and similar work make up the primary cause for dissent and warrant attention.

If red meat is part of lifestyle choices as found by the MEC study, and changing lifestyle choices effects health, than even in this research "dissent" supports the limitation of the overconsumption of red meat. Our food environment is inextricable from an analysis of our health (See Chapter 4). Though researchers on the MEC study challenge whether there is a direct link, they agree that red meat is part of a lifestyle pattern and food environment associated with adverse outcomes. Positively changing the environment in which the Nation's population makes food choices will lead to healthier lifestyle and decrease the incidence of colorectal cancer.

Another common dissenting opinion regarding the correlation between red meat consumption and incidence of colorectal cancer is that obesity is a mitigating factor. Proponents of red meat consumption argue that if the population or individual has a healthy, normal BMI, than red meat can safely be consumed. This claim is supported by the MEC study. ¹⁴ Researchers, however, have found a direct link between diet and incident cancer, even outside of the obesity variable. Rasmussen-Torvik et al find that

participants adhering to at least seven of the "ideal health metrics" defined by the American Heart Association, with an important metric being diet, have lower cancer risk. ⁵² For colon cancer specifically, Willett et al found a positive association and Harvard Medical School's "Family Health Guide" compiles evidence from several studies linking high red meat consumption with N-nitroso compounds found in the body that are suspected to cause cancer. ⁹ The link between red meat consumption and cardiovascular disease, likely due to the L-carnitine amnio acid, is discussed in Chapter 3. This evidence of a direct link between cancer and diet, outside of BMI variables, builds this model of affected health:



Colorectal cancer claims 51,000 U.S. lives annually. It is the second leading cause of death by cancer in the Nation and cancer is the second leading cause of death overall. ^{3,8} The leading cause of death is cardiovascular disease, which is also associated with the consumption of red meat (See Chapter 3). Colorectal cancer also causes suffering. Public health and medical fields must work to decrease suffering. ¹⁵ The experience of suffering from colorectal cancer depends on the state of the disease. Common victim experiences include abdominal pain, internal bleeding, bowel obstruction, constipation, diarrhea, anemia and many opt for intensive surgeries with long and uncomfortable recovery periods; in some cases chemotherapy is used before surgery which causes nausea, weakness and fatigue, loss of hair and appetite, and more undesirable outcomes. ^{19,20} Without appropriate screenings, first symptoms often appear

after the disease has entered an advanced state. ^{19,20} Furthermore, incidence of colorectal cancer can occur long before screenings are recommended. ²¹

Patient accounts of the experience of colorectal cancer are very telling: one young man, diagnosed at age 16 after he noticed rectal bleeding, is now living cancer free but will forever discard feces through a colostomy bag.¹¹ He describes the social stresses of the medical intervention and the interruption of the surgeries and hospitalizations it too to ameliorate his cancer. His diagnosis came long before the medical field recommends screenings, so the patient urges the public to take preventative measures in lifestyle and nutritional choices.^{9,10,11}

Colorectal cancer is clearly damaging, wide-spread, fatal, and akin to suffering.

Therefore, the labeling of red meat with a warning of the colorectal correlation is supported by the ethics of the public health and medical fields.

Chapter 3: Red Meat's Association with Obesity and Cardiovascular Disease

The leading cause of death in the United States is cardiovascular disease. ¹⁸ Those consuming high levels of red and processed meat are at greater risk of mortality, partly due to red and processed meat's correlation to obesity and cardiovascular disease. ²² The term heart disease, interchangeable with cardiovascular disease (CVD) describes a wide range of heart ailments including arrhythmias, infections, congenital heart defects, and coronary artery disease; CVD events include stroke and blocked blood vessels that can lead to a heart attack. ²⁸ Obesity is a growing, global epidemic that is a public health crisis in the United States. ²⁷ Obesity is linked with a plethora of chronic diseases, examined here is its association with red meat and cardiovascular disease.

In a 2009 study with participants from across seven states and two major metropolitan areas, researchers found that those individuals consuming the highest quantities of red meat had elevated mortality risk as compared to the rest of the sample.²² Those individuals categorized with the lowest consumption of red and processed meats were at the lowest risk of mortality. Participants ranged from 50 to 71 years of age and were tracked for 10 years.²² The results were significant to the public health field and support FDA warning labels on red meat: "Furthermore, cardiovascular disease risk was elevated for men and women in the highest quintile of red…and processed meat…"²², p.562

An intervening factor in finding the correlation between red meat and cardiovascular disease is obesity. Obesity is positively linked to cardiovascular disease and a multitude of other illnesses.²³ Leaders have long suspected that factors such as cholesterol, saturated fats and even the high salt content in red meat products are at the

root of its correlation with obesity.²³ Refuting studies failing to find a link between saturated fats and CVD instigated further investigation. Researchers have recently found a direct link between red meat and CVD and major adverse cardiac events.^{23,24}

The source of the association is thought to be L-carnitine, a nutrient found in red meat. Our ingestion of L-carnitine is much higher than its ingestion in non-industrial societies. Overconsumption of L-carnitine in humans, researchers found, is part of a previously unstudied nutritional pathway toward accelerated atherosclerosis: "Consuming foods rich in L-carnitine (predominantly red meat) can increase fasting human L-carnitine concentrations in plasma. Meats and full-fat dairy products are abundant components of the Western diet and are commonly implicated in CVD." P. 1883

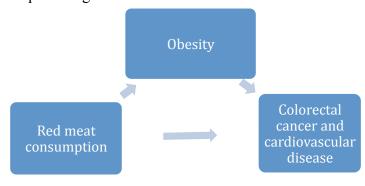
Though clearly a correlation exists outside the mitigating factor of obesity, obesity is of course a common precursor to cardiovascular disease and death.²⁵ Diet, of course, is a large component of lifestyle choices affecting weight gain and loss. Using data compiled by three large health studies, with a totaled sample size over 120,000 participants, researchers found that food categories most associated with weight gain included red meats, both processed and unprocessed.²⁵

Red meat consumption correlates to increased risk of cardiovascular disease, the first leading cause of death in the Nation. Close to 600,000 deaths occur due to cardiovascular disease in the U.S. each year. ¹⁸ To appropriately label red meat products warning consumers of the detrimental health effects of its overconsumption should deter red meat overconsumption and positively affect the Nation's health. Colorectal cancer is solidly linked to high consumption of red meat (see Chapter 2). Primary justification for changing labeling practices of red meat is based on its correlation with colorectal cancer.

Colorectal cancer's correlation to red meat is well defined and less clouded by issues of obesity and lifestyle choices in industrial societies. However, health policy must look at other outcome of the initiative's implementation. Studies suggest that limiting meat consumption will decrease the incidence of CVD and obesity. The U.S. Department of Agriculture (USDA) includes "limiting red meat and dairy consumption" as part of its long-standing editions of *Dietary Guidelines for Americans*. The Red Meat Control Act acts in accordance with these guidelines and is solidly grounded in scientific data, evidenced by the studies discussed here.

The Red Meat Overconsumption Prevention and Control Act will assist in the translation of findings correlating red meat, obesity, and cardiovascular disease. Labeling red meat products is congruent with public health's charge of making valuable health information more accessible to the public.

Proposed argument model:



Dissenting argument model:



Chapter 4: Red Meat in the U.S. Food Environment

U.S. Patterns of Meat Consumption

As fiscal stability and resources increase, so does the consumption of animal products. Cross-culturally and across vast geography, as incomes rise, people rise up the food chain, eating more eggs, milk, seafood, red meat, and pork.²⁹

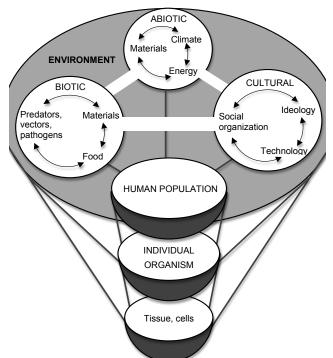
Principle component analysis was used to find the Western dietary pattern.¹ The top ten food types in descending order of frequency are: animal products, meat, animal fats, milk (excluding butter), offals, alcoholic beverages, sugars and sweeteners, eggs, stimulants, and total calories.¹ Successful and attempted legislations already exists regulating stimulants, alcohol, and sugars/sweeteners, but these nutritional health initiatives exclude the top three food factors comprising the Western dietary patterns.

Due to the prevalence of red meat consumption in the U.S., policy such as the Red Meat Control Act attempting to limit its overconsumption is has deep and far-reaching potential consequences. Labeling, as an aggressive educational methodology to inform the consumer of the health risks associated with red meat overconsumption is justified. However, more research and consideration is needed to evaluate the methodology of taxation (See Chapter 5 and 6). In this chapter, we explore how and why health policy initiatives involving our nutrition in general, and red meat specifically, affect many aspects of our physical and social environments.

Red Meat in the Abiotic, Biotic, and Cultural Environment

Adopted from Ann McElroy and Patricia K. Townsend's *Medical Anthropology* in *Ecological Perspective*, a significant contribution to the field of medical anthropology, the image below is a working model of ecology and health. As a population, we are affected by our biotic, abiotic, and cultural environments. Within those environments, red meat consumption affects our food (biotic), our climate (abiotic), and our ideology

(cultural).^{29,32,33,35}



Therefore, U.S. legislation to address the overconsumption of red meat through education of the consumer with labeling has the opportunity to benefit the public health from three dimensions, in a holistic improvement of nutritional health. Each dimension's interrelationship is modeled in McElroy and Townsend's model.

As a food source, red meat

directly affects our population- and individual level health. The problematic health consequences of the overconsumption of red meat are discussed in Chapter 2 and Chapter 3.

Significant opposition against labeling and taxation to decrease the overconsumption of red meat comes from the ideology of the United States. Red meat is part of history and our culture. However, affected ignorance, as part of the Nation's continued inaction on the health detriments of red meat consumption, negatively affects our ideology. Affected ignorance is the refusal to adapt to new information and a calloused approach to agency in our food environment; affected ignorance is discussed further below.

Red meat procurement also affects our social organization. Most U.S. red meat products are purchased from factory farms.³⁵ Large scale factory farming relies more heavily on marketing and packaging than food quality to sell their red meat products.^{29,35} Food quality thus suffers as does the job environment, as part of social organization, around the procurement of food. Fewer jobs are available in a system utilizing large scale factory farms than smaller farming environemnts.³⁵

Factory farms are destructive to immediate environments, disrupt water tables and distribute olfactory and other pollutants.²⁹ Red meat production in factory farms provides crowded, unsafe conditions; crowded, unhealthy animals held in these conditions produce unsafe meat and contribute to meat-related illness.⁸ Diseases such as trichinosis, and dysentery are common in these conditions.⁶ The immediate red meat production environment affects the public's health. Transportation of red meat products contributes to the depletion greenhouse gases as well as oil consumption. With a broader perspective, it is evident that red meat production and mass consumption is corrosive to the environment of future generations. Commitment to the principle of beneficence encourages public health initiatives to protect current and future generations.

"Factory farms that produce hogs and poultry are now among the most polluting industries." According to the Humane Society of the United States, nearly every stage of animal meat procurement as it is currently widely practiced is globally damaging to the environment and has direct effects on climate change. Statements from the organization concerning damaging emissions of red meat livestock are based on findings from the Intergovernmental Panel on Climate Change. The Nobel Prize-winning panel predicts that "without immediate and meaningful action" global climate changes, in part due to our current practice of meat procurement, will be vastly and irreversibly destructive to plant and animal species and our own valuable natural resources. 36,37

Factory farming and morality

Mass production of red meat contributes to moral callousness and the affected ignorance of the Nation. 32,33 The World Health Organization's definition of health is: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." As discussed previously, factory farming negatively affects our physical and social well-being. Here, factory farming's detriment to our social well-being is examined. The form of affected ignorance pertaining to the Act is "...a widespread tendency to uncritically accept the dictates of custom and ideological constructions. It usually involves a dogmatic adherence to conventional rationalizations and the unwillingness to accept the possibility that majority opinions and widespread practices can be mistaken or cruel." 33, p. 375 To put into terms appropriate to this discussion, even though cheeseburgers and hot dogs are as iconic to U.S. culture as apple pie, our continuation to culturally push for the inclusion of factory farming is bypassing

our better judgment through our persistence of ignorance. We do not wish to know about the practices of factory farming and when they are presented to us, by organizations such as the National Humane Society, we ignore them. Perhaps due to red meat's historical role in western expansion and its position in our ideology, U.S. policy is delayed compared to Europe's; European Union animal welfare practices are much more stringent than are those enforced in the U.S. ⁸⁹

Affected ignorance erodes our intellectual virtues, opposing our commitment to be knowledgeable agents of our own environment³³; we are at significant moral risk as our elected representatives, and the public at large, ignore the environmental harms of factory farms and the great animal cruelty that takes place within them.

Moral callousness is another detrimental health effect of our continued refusal to aptly address factory farming, and our culture's attitude toward meat eating in general.³² To justify his proposal that vegetarianism increases the net utility of the world, Roger Crisp, a Lecturer in Philosophy at St. Annie's College, Oxford, presents six arguments; four of which are pertinent to the Act and can justify the legislative effort without invoking traditional animal ethics:

- *The Argument From Callousness:* 1. The practice of rearing animals and killing them for food engenders a callous attitude in human beings toward other human beings. 2. The attitude will be expressed in callous actions toward other human beings, which cause suffering. 3. Suffering is wrong. 4. Therefore, the practice is wrong.³²
- *The Argument for Paternalism:* 1. There is strong evidence that Meateating is not conducive to the health of the population. 2. It is the utilitarian duty of the government to minimize harm. 3. Therefore, Meateating ought to be forbidden.³²
- *The Argument from Starvation*. 1. The widespread practice of Meat-eating requires the feeding of large amounts of protein to animals. 2. This protein could be used to feed those human beings who are starving. 3. By eating meat, we are causing the deaths of these human beings. 4. Causing the

- death of human beings is wrong. 5. Therefore, we ought to cease to eat meat ³²
- The Argument from Future Generations: 1. Extra sentient beings in the world would raise the level of utility. 2. Human beings are the most efficient producers of utility. 3. Therefore, it is wrong to rear animals for food, since the protein consumed by these animals would produce more utility if used to feed extra human beings, until an optimum population is reached.³²

The above arguments are strong through the lenses of ethics and public health, even outside the scope of traditional animal ethics. The framework touches on the inefficiency of food production in factory meat farming. Significant water and food resources that are allocated to cattle and other red meat animals could be more efficiently distributed directly to human populations. Lack of these resources causes suffering and loss of life; therefore, it is consistent with public health ethics frameworks to direct the authority of the FDA to counter the overconsumption of red meat.

With several points of resource inefficiency and abuse identified, taxation could be considered in the future to help correct for the climate and health detriments of red meat and the costs associated with those damages. Using the World Health Organization's definition of health as a backbone, it is clear that the Nation's failure to appropriately label the products of the red meat industry is destructive to our physical, mental, and social health.

Chapter 5: The Act and the Principles of the Ethical Practice of Public Health

"The mandate to ensure and protect the health of the public is an inherently moral one." ^{38, p. 1057} For the institutions obligated to protect the public's health, such as the Food and Drug Administration, to continue to ignore the correlation between red meat and colorectal cancer is immoral. Continued failure to take action disrespects the ethical practices of public health and is an injustice to the Nation's well-being.

The goals of public health have long been clear. A helpful articulation was provided by the Institute of Medicine in 1988, defining public health as: "What we, as a society, do collectively to assure the conditions for people to be healthy." The actions and obligations of health institutions obligated to fulfill this goal are made more concrete and more explicit when examined utilizing public health ethics frameworks. Current practices of public health, including the initiatives and policies that govern our food availability and costs, can be usefully evaluated within these frameworks. With a strong ethics lens, these frameworks lend themselves to bridging the gap between ideals of ethics and morals and the ground-level realities of constructing, implementing, and evaluating policy and health initiatives.

The medical field makes explicit its ethical pillars and their extrapolations are made tangible in the clinical arena by extensive bioethics literature. The ethical principles of individual-level medical practice rest on pillars of ethics—to do no harm, to do good, and to respect autonomy—and are seemingly appropriate for practice of public health. However a verbatim adoption of medical ethics fails to comprehensively govern a population-level field and fails to appropriately address systemic change. The ethical principles of individual-level medical practice rest on pillars of ethics—to do no harm, to do good, and to respect autonomy—and are seemingly appropriate for practice of public health. However a verbatim adoption of medical ethics fails to comprehensively govern a population-level field and fails to appropriately address systemic change.

A pivotal framework providing a productive, helpful structure to implementing and evaluating public health policy and health initiatives at the population-level is the Principles of the Ethical Practice of Public Health, written by the Public Health Leadership Society, an interdisciplinary team. The Principles of the Ethical Practice of Public Health provides a framework upon which to evaluate the ethics of labeling of red meat in the U.S. The values and beliefs are included in Appendix I.

For the purposes of the Red Meat Control Act's effort to improve the public's health, six assumptions are most appropriate for elaboration: 1) we have a right to resources necessary for healthy living, 3) the power of institutes rely heavily on the public's trust, 5) we are products of our environment and in turn shape our environment, 6) a healthy society needs the knowledge to be so, 9) this knowledge is to be grounded in the sciences, and 10) the public health field must work as a translator of the available knowledge provided by the sciences.

This legislative effort upholds the assumptions of the Ethical Practice of Public Health, compiling the best available scientific consensus concerning red meat and its correlation to colon-cancer. The medical and public health fields recognize the interconnectedness between individuals, populations, and environments. For the Nation's people the current nutritional environment is deadly. Our food availability and choices, stewed in a climate of rich corporate marketing, contribute to the disease of obesity, and are associated with decreased fertility, cardiovascular disease, and cancer.

The resources necessary for health, including health knowledge, is a social good.

Currently, our food-marketing environment, and the information available, in

insufficiently informs consumer choices concerning red meat. Institutions charged with

the betterment of the public's health, such as the Food and Drug Administration, currently insufficiently address the dangers of red meat consumption and its correlation with colorectal cancer and obesity. "The role of the government is to provide certain key services that should not be left to the market alone, and to establish the rules under which the different agents operate in a way that is compatible with promoting population health and reducing inequalities. The stewardship role of the state also implies, among other things, that it has good reasons to intervene where there is a risk that some agents will free-ride on important goods at the expense of others, or where only regulation can ensure that desirable goods or services are available."41 The continuation of federal and health institutions' complacency is a mismanagement of the public's trust. To regain lost trust, and to better earn the public's invested trust, public health institutions, especially the Food and Drug Association cannot continue to ignore evidence of the public health detriments associated with the overconsumption of red meat. We are products of our environment, and these institutions are failing to appropriately translate and mitigate the marketing environment in which we, the public, make food choices. What food is available at what price and under what advisement of purchase contributes to our nutritional environment, both social and physical. Most meat procurement methods now rely more on packages than food quality. 35 The choices we make in turn influence what products are available at what costs. This interplay will only continue to feed into poor health decisions, including the overconsumption of red meat and the Nation's public will continue to suffer unnecessarily from obesity and colorectal cancer unless the Food and Drug Administration appropriately translates the knowledge provided by the sciences for

the utilization of the Nation's public. The best translation is through more appropriate labeling of these red meat products endemic in our food environment.

The principles of an ethical practice of public health, as developed by the Public Health Leadership Society, provide a valuable framework. In the following paragraphs, the Act is considered within each principle to the conclusion that the framework is respected by the legislation public health initiative. Legislation limiting red meat overconsumption is congruent with the ethical practice of public health. To elaborate, each principle is considered in the justification of legislation limiting red meat overconsumption:

Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes. The overconsumption of red meat is a proven precipitating factor contributing to the incidence of colorectal cancer (see Chapters 1 and 2). Colorectal cancer is adverse disease causing pain, suffering, extensively health care costs, and preventable death. Colorectal cancer is an adverse health outcome. Limiting a precursor, such as red meat, is an ethical public health measure to decrease this adverse health outcome of colorectal cancer.

Public health should achieve community health in a way that respects the rights of individuals in the community. ³⁹ A benchmark public health field struggle is the balance of individual choice and agency and the good of the population as a whole. ⁴¹ Few choices are as personal as food consumption and nutrition, choices than what we feed ourselves and our children. However, we have far less agency than what is prima facie granted. Our choices, as is congruent with the framework's fifth key assumptions, are made in a food environment rich with corporate marketing and societal pressures and norms. Our choices

are made in a complex environment. Respecting the rights of individual choice is of course mandated, however, this legislative effort argues to decrease red meat's consumer desirability and thus decrease its overconsumption. The Act works in direct competition with corporate marketing via more appropriate labeling and best respects the rights of individual choice by informing those choices with valuable nutritional information. The Red Meat Control Act enriches the choice with the knowledge of the scientific community translated by public health, for the utilization of the individual consumer.

Public health policies, programs, and priorities should be developed and evaluated through processes that ensure an opportunity for input from community members.² As a federal agency, the Food and Drug Administration holds collective power granted by the people of the Nation. Changes in federal health policy have long been influenced by new pieces of influential works, perhaps most famously by Upton Sinclair's *The Jungle*.⁴² In theory, in a democracy, the government leaders who constructed agencies such as the Food and Drug Administration represent the public, and hold highest in priority the public's good.

However, recognizing the potential, and perhaps realized, disconnect between the public, the public's representative, governmental leaders, and the FDA, this legislative effort has an inherent input channel for community members: our collective buying power. In some ways, we vote with every dollar we spend. If red meat consumption is of highest priority to the Nation's collective buying power, than changes in labeling and taxation should not decrease sales. If health, well-being, and/or financial concerns trump the priority of red meat consumption, sales should decrease. This legislation has an inherent checks and balances through its purchasing loop. Furthermore, routes for

feedback should be provided by the FDA after policy implementation. Possible methods to incorporate community opinions would be focus groups and surveys.

Public health should advocate for, or work for the empowerment of, disenfranchised community members, ensuring that the basic resources and conditions necessary for health are accessible to all people in the community.³⁹ Making more available and explicit knowledge of the health detriments associated with the overconsumption of red meat is to the benefit of our most vulnerable community members. As is congruent with the key assumptions, knowledge predicates empowerment and public health policies and institutions are charged with providing and translating the knowledge the Nation's public needs to better navigate our food environment. Currently, basic conditions necessary for health are not satisfactory. Though there is overwhelming evidence and considerable consensus in the scientific-medical community of the correlation between red meat consumption and colorectal cancer, its consumption is not appropriately regulated by the Food and Drug Administration. This complacency further disadvantages our most vulnerable who have fewer food choices, the least economic resources and stability, and therefore the least agency in the food environment.

Public health should seek the information needed to implement effective policies and programs that protect and promote health.³⁹ The information linking colorectal cancer with red meat consumption is readily available with a simple, non-academic search. It is in the public's best interest to have public health institutions charged with upholding safety standards seek the information on the public's behalf and implement effective policies that protect health. The Red Meat Control Act upholds this principle by providing the scientific information and ethically justifying implementation of policy

based on this knowledge. To further ignore evidence of red meat's contributions to the obesity crisis and as a cancer precursor is to work against this principles of the ethical practice of public health.

Public health institutions should provide communities with the information they have that is needed for decisions on the policies or programs and should obtain the community's consent for their implementation.³⁹ Currently, red meat escapes appropriate labeling and thus communities are deprived of the information needed for beneficial nutritional decisions. Consumers are not empowered with the information they need to make educated decisions. Red meat is not typically explicitly listed as an ingredient.

Instead, its components, often beneficial such as protein, are listed in raw weight and percentage of daily value. As stated by its own "Major Initiatives" (See Chapter 10), the FDA is charged with "a mandate to develop a science-based food safety system..." The safety system is not effective if the public is unknowingly purchasing products associated with colorectal cancer.

Consent for implementation comes directly from our governmental structure.

Passage of the Family Smoking Prevention and Tobacco Control Act demonstrates how similar legislation gained Senate and House of Representatives approval and thus consent from the public and became a mandate of the FDA. The Tobacco Control Act became law in 2009 and grants the FDA authority to regulate its labeling and sale in an effect to protect the public's health.⁸¹

Public health institutions should act in a timely manner on the information they have within the resources and the mandate given to them by the public.³⁹ Rapid media attention was granted to the correlation between red meat overconsumption of red meat

when NPR correspondent Patti Neighmond wrote "Study Links Red Meat To Cancer, Heart Disease," compiling epidemiological studies addressing red meat and cancer gained national attention. It was published four years ago. The authority of the FDA has not responded to this research in a timely manner. Therefore, the above legislation described in Chapter 1 is critical to mandate a response from the FDA. Part of the delay could be caused by mitigating factors within the correlation and dissent from members of the medical and public health fields. Further discussion of these factors is included in Chapter 2.

Public health programs and policies should incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community. ³⁹ To uphold this principle of the ethical practice of public health presents a very specific and difficult challenge to advocates of the proposed legislation. Food and culture are inescapability intertwined; food is part of how we socialize, how we raise our children, and is very culturally significant. ⁴³ To caution this legislation of disparity and inequality addressing different cultures in the Nation is fair. However, because this legislation does not prohibit red meat consumption nor is prejudicial in labeling practice, it is ethically justifiable through a lens of cultural competencies. Potential taxation must also equally and fairly blanket consumer to respect diverse values, beliefs, and cultures of the Nation. Furthermore, food practice, like culture adapts to the environment. ⁴³ Again referencing the Tobacco Control Act for guidance, it is clear that nationwide, systemically consistent labeling and taxation practices fairly respect diverse values and cultures of the Nation. To inconsistently label and/or tax foods of particular ethnic origin, such as Kosher Foods or

imported foods from particular countries, would be disrespectful of culture and prejudicial.

Because of the obesity crisis and prevalence of preventable disease, our Nation's cultural food practices, and how they are addressed by government agencies like the FDA, perhaps need cultural adaptation to the current food environment. Maladaptation to toward unhealthy foods has clearly contributed to preventable disease. Discussion of which is outside the scope of the ethics discussion around the Act.

Public health programs and policies should be implemented in a manner that most enhances the physical and social environment.³⁹ Food practices blur the line between the physical and social environment in which we live. Social practices very frequently involve the preparation, distribution, and sharing of food.⁴³ Foods we consume, and the manner of procurement, like factory farming, are part of our physical environment. Though complex in the overlap and intricacies, legislative efforts striving to better shape the public's relationship with food and address cases of some foods' detrimental public health effects, have the opportunity to holistically enhance the food environment, both social and physical (See Chapter 4). Such health initiatives are farreaching in our community with broad implications.

Public health institutions should protect the confidentiality of information that can bring harm to an individual or community if made public. Exceptions must be justified on the basis of the high likelihood of significant harm to the individual or others. ³⁹ Because privacy is not compromised by the Act, this principle does not apply.

Public health institutions should ensure the professional competence of their employees.³⁹ This public health legislative effort does not redirect or supplement power

to the Food and Drug Administration. It appropriately directs pre-existing responsibilities and power to address the issue of red meat consumption and its correlation with colorectal cancer. Further discussion of the Food and Drug Administration, slogan—"Protecting and Promoting YOUR Health"--is included in Chapter 10. Margaret Hamburg, M.D., the Commissioner of the Food and Drug Administration as of 2009 pledges to uphold the standard congruent the Act: "Strengthening FDA's programs and policies will help us protect the safety of the food supply, give the public access to safe and effective medical products, find novel ways to prevent illness and promote health, and be transparent in explaining our decision-making...A Strong FDA is an agency that the American public can count on."

The Nation's public already relies on the FDA's expertise in selecting employees and holding them to an appropriate standard of professional competence. The Red Meat Control Act does not change or manipulate this responsibility; it mandates that the collective regulatory power of the FDA appropriately works to mitigate the Nation's overconsumption of red meat through labeling.

Other valuable resources for the aggressive educational public health effort of red meat labeling are state and local public health institutions. With community engagement, these institutions are potentially a source of feedback for the FDA concerning the labeling practices post-implementation.

Public health institutions and their employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness.³⁹ This principle is upheld by the Act as it mandates the FDA work with the scientific community to appropriately label red meat for its correlation with colorectal cancer. The

Act proposal also asks for consideration of taxation of red meat to offset the healthcare costs associated with colorectal cancer, CVD, and obesity.

As is congruent with the key assumptions issued by the Public Health Leadership Society, the FDA must provide, translate and disseminate science-based knowledge to the public for the betterment of the Nation's health. An important affiliation, therefore, is between the FDA, with the authority to regulate, and the scientific leaders of academia and government as experts in the fields of food and health. Inappropriate collaborations may exist between corporate interests, those advertising the sale and overconsumption of red meat, and government agencies charged with the protection and promotion of the public's health. Lobbyist power, however, is outside the scope of this discussion.

The Act upholds each principle of the ethical practice of public health, minds key assumptions, and will promote the betterment of public health through the redirection of the Food and Drug Administration. At its core, the Act upholds the ethical principles to act on information, advocate for and empower consumers, make available basic resources, uphold professional competence, and enhance physical and social environments—all essential to public health services.³⁹

Chapter 6: The Act in Ethics Frameworks

Nancy Kass, a bioethics and health policy field leader, holds appointment at the Center for Global Health at the Johns Hopkins. Her piece, "An Ethics Framework for Public Health," provides structure in the evaluation of public health policy and initiatives. Published in the *American Journal of Public Health*, this framework works to assess the ethical justification and public health efficacy of addressing red meat overconsumption by the Nation's people via labeling.

Through each point of the framework, this chapter investigates the justification of the Red Meat Overconsumption Prevention and Control Act. As discussed in Chapter 5, such frameworks are important and valuable tools for health policy makers and bioethicists: "A framework of ethics analysis geared specifically for public health is needed, both to provide practical guidance for public health professionals and to highlight the defining values of public health, values that differ in morally relevant ways from values that define clinical practice and research. A first attempt at such a framework is offered here." 15, p. 1776

- 1. What are the public health goals of the proposed program?
- 2. How effective is the program in achieving stated goals?
- 3. What are the known or potential burdens of the program?
- 4. Can burden be minimized? Are there alternative approaches?
- 5. Is the program implemented fairly?
- 6. How can the benefits and burden of a program be fairly balanced?¹⁵

The above questions act as analytical tools most appropriately used here to consider ethics implications before policy/initiative/program implementation. Anticipating outcomes is important, however some consequences cannot be predicted by examining

precedent. A particular challenge to the field of public health is to emphasize positive rights in addition to more protective or preventatives measures. Positive rights of public health mandate that institutions such as the Food and Drug Administration work to improve the public's health and decrease the disparities of access and social inequalities. He Red Meat Control Act is a protective measure, increasing informed agency of food purchasing patterns by providing available valuable information via labeling on products containing red meat. Taxation, as potentially part of future efforts, would be a limiting measure. To respect positive rights, as an affirmative responsibility, the Act aims to improve the health of the Nation's public by requiring action from the Food and Drug Administration to implement policy acting in respect to the correlation between red meat and colorectal cancer. To assess the Act as a public health program, each question of Kass's framework in answered in respect to limiting red meat consumption via warning labels. Discussion of potential taxation measures is also provided.

What are the public health goals of the proposed program?¹⁵ Kass demands more of public health program goals than education; a program must be oriented with the goal to improve health, whether this means decreasing incidence of illness or increasing accessibility to physical and social health goods. For example, describing the dangers of illness or pesticides in water as a well-intended educational module is not enough.

Therefore, the Red Meat Control Act must work further than educating the public on the correlation between red meat overconsumption and colorectal cancer incidence. The Act's goals must aim to decrease the incidence of colorectal cancer by decreasing the consumption of red meat by the Nation's public. A more narrowly constructed goal of the

Act is to decrease suffering, deaths, and costs due to colorectal cancer through the mechanism of decreasing red meat consumption. The mechanism for decreasing red meat consumption is labeling, and potentially taxation.

To answer the first framework question, the Red Meat Overconsumption Prevention and Control Act's provides Section.3. Purpose. The purposes of the proposal are to provide standards for the authority of the Food and Drug Administration to label red meat products, to legally recognize the overconsumption of red meat products as corrosive to the public's health, to impose appropriate labeling controls on the red meat industry, to more wholly align the Food and Drug Administration's authority with the Principles of the Ethical Practices of Public Health, and to more appropriately direct the authority of the Food and Drug Administration standards controlling the labeling of red meat.

Finally, the Act aims to promote the public's health by limiting a cancer causing agent partially responsible for the approximately 51,000 annual deaths in the Nation by colon and rectal cancers, and to promote the public's health by limiting red meat, a precursor to cardiovascular disease risk, obesity, and death.

How effective is the program in achieving its stated goals?¹⁵ For a policy to be implemented in the future, we must look behind it for precursory data and similar efforts. Language and structure for the Red Meat Overconsumption Prevention and Control Act was adopted from the Family Smoking Prevention and Tobacco Control Act, known casually as the Tobacco Control Act.⁴⁴ The Tobacco Control Act restricts marketing, mandates stronger health warnings be visible on advertisements and tobacco packaging, increases the transparency of tobacco product ingredients, and reduce nicotine contents.⁴⁵ In 1994, despite aggressive opposition from major U.S. tobacco companies, the Food and

Drug Administration deliberated that it must act to limit tobacco use by the Nation's public, and most importantly, the Nation's youth. The FDA appropriately relied on the scientific and medical community's consensus on the negative effect of tobacco on the public's health to make legislative changes.

How will effectiveness be measured for the Act? If purchasing behavior of red meat products does not change than predictably, the mobility and mortality rates of colorectal cancer will not change, and the Act can be considered a failure. Should overconsumption of red meat continue, and the Nation continues to consume vastly over recommended guidelines, than labeling efforts were futile. While health education programs are helpful, if the behavior (in this case, red meat overconsumption) does not change as a result of new and more accessible information, the goals of the public health program were not met.

What are the known or potential burdens of the program?¹⁵ Kass identifies three categories of public health initiative burdens: "risks to privacy and confidentiality, especially in data collection activities; risks to liberty and self-determination, given the power according public health to enact almost any measure necessary to contain disease; and risks to justice, if public health practitioners propose targeting public health interventions only to certain groups."^{15, p. 1779} As previously stated, the proposed Red Meat Overconsumption Prevention and Control Act in no way collects or solicits information from consumers, so risks concerning privacy or confidentiality do not apply. Since labels are applied to the red meat products themselves, rather than educational efforts directed to certain consumers, it is evenly applied to the Nation's public. The Act does not unfairly target a particular group or subculture in the United States. Vegetarians

and vegans will obviously be less affected by the proposed legislature but since these lifestyle choices already limit exposure to the risks of overconsumption of red meat, the legislative proposal need not affect them. The ethical principle of justice is upheld by the Red Meat Control Act.

The most challenging category of burden of this legislative effort is risks to liberty and self-determination because the Act strives to steer the public's nutritional choices away from red meat products. Burdens and benefits must be even among the population. If Implementing and enforcing warning labels red meat products is a paternalistic education campaign. It chooses a value—safer purchasing behavior to decreasing colorectal cancer in the U.S.—on behalf of the population, and considers it universally valued, or valued enough to warrant intervention by a change in labeling practice. The burden of inconveniencing self-determination in purchasing behavior is an evenly distributed risk and impediment of agency for the betterment of the public's health. Labeling is a low-risk methodology to address overconsumption of red meat.

Taxation puts self-determination at higher risk than does labeling and, although not mandated by the Act, is discussed here for future purposes. "Regulations and legislation, strictly speaking, are coercive since they impose penalties for noncompliance." ^{15, p. 1780} In this case, the penalty is fiscal: increased cost of products containing red meat due to taxation. Seat belts laws, speed limits, vaccination requirements to attend public schools, and smoking ordinances are all similar examples of government imposition onto personal agency and self-determination in favor of one or multiple clear benefits to the public's health. To justify the intrusion on self-determination, there must be significant evidence of benefits of the public health policy, initiatives or legislation. In this case, there is solid

evidence of the public health and individual health detriment associated with red meat consumption (See Chapters 1 & 2).

Further consideration of the potential for taxation is the issue of equality of burden. Healthcare costs are shared in the U.S. Tax dollars support those without insurance, supplement hospital systems, and build public health institutions. Thus, the burden of costs from diseases such as obesity and colorectal cancer are shared by all of us, even those who do not purchase red meat or purchase meat in moderation. In this system, those avoiding unhealthy food choices are still paying for the unhealthy nutritional choices of others. Taxing red meat more equitably distributes the burdens of an unhealthy society made more damaging by limitless and red meat overconsumption.

Can burdens be minimized? Are there alternative approaches?¹⁵ Now that burdens of the Red Meat Control Act are identified, can the new legislation be made less intrusive to self-determination? Much more stringent limitations align with the goals of the Act to decrease consumption of red meat to decrease incidence of colorectal cancer. Such limitations could include outlawing red meat, outlawing sale above a certain quantity of red meat, or tracking red meat consumption and applying more narrowly pointed taxation practices. However, these routes are intrusive and do not minimize the burdens. Selected for this Act is the practice of limiting red meat consumption through the least intrusive methodology: labeling. Taxation is also considered for future health policy. The required warning labels are essentially an educational measure. Education is often the least intrusive methodology utilized by public health. ¹⁴ Logic follows that if the public is more aware of the dangerous outcomes of overconsumption of red meat, the public's purchasing practices will include fewer products with red meat. Because of the

astronomical healthcare costs (See Chapter 8), taxation is an appropriate public health methodology and minimizes burdens to individual consumers.

Is the program implemented fairly?¹⁵ To respect distributive justice, public health must avoid policy and initiatives than unfairly burdens or benefits sub-populations, ethnic groups, SES groups, etc.¹⁵ Labeling practice will apply to all consumers equally. Educational/warning labels will be placed on the products themselves, not directed at certain segments of the public. Taxation will apply to all those purchasing items, not just consumers in a particular area or of a particular group. To uphold this aspect of Kass's public health ethics framework, the Red Meat Overconsumption Prevention and Control Act must be implemented at a federal, not state, level. Red meat consumption varies by state and healthcare costs cross state lines. Nutritional and other health habits are too interconnected among regions for fair implementation at a state level.

Does this legislative effort work to dissolve current inequalities? "Discussed less frequently is whether, or the degree to which, public health has any explicit role in righting existing injustices..." There is a preexisting social inequality of shared financial burdens of obesity and colorectal cancer and individual contributions to the epidemic. Those choosing to limit their consumption of red meat decrease the strain of obesity and colorectal cancer costs on the healthcare system. They are missing out, however, on bountiful and likely cheaper food choices. These individuals then share in the healthcare costs of those who made poor nutritional decisions, perhaps selected for taste or cost-effectiveness over health. Significant dissent will likely arise with the assertion that taxation and more appropriate labeling of red meat helps to ameliorate current social inequality. This nuance of fair implementation of the policy need not apply

for justification of the Act. Discussion of this particular benefit is simply supplemental to the case for the Act's fair implementation.

A particularly pertinent argument against the taxation discussed in this proposal concerns our most vulnerable populations, those of very low SES whose access to nutrients in red meat could be limited by its increased cost via red meat taxation. Very low grade, processed meat is available at accessibly cost. Increasing the cost, or taking away the least expensive option, could be construed as unfair implementation, most burdening a low SES population. An argument against future efforts to further restrict red meat access is that such policy will add further strain on individuals and families already struggling to purchase food. Likely, healthcare costs offset the benefit of the low costs of low grade, processed red meats. The nutritional system currently constructed in the U.S., in both the physical and societal environments, unfairly burdens our most vulnerable populations with low-grade, unhealthy food. More research is needed to best protect vulnerable populations during the implementation of public health policy working against the overconsumption of red meat. Analysis of healthcare burdens balanced with increases cost of taxed red meat would significantly contribute to future efforts.

By translating current scientific and medical knowledge to warning labels of red meat, this legislation steers better consumer decisions. This warning may be most pertinent to consumers with the least access to valuable information concerning their health.

Other groups to be considered in the fair implementation of the Act are farmers and profiteers of the red meat industry. Should the Act unfairly burden small meat production companies, its implementation cannot be justified. However, all products containing red

meat fall into the labeling categorization, no matter the product's distributor. Small or large companies are not differentiated in their burden. In fact, the public's health is burdened by the overconsumption of red meat, propagated by its producer's aggressive marketing campaigns, and thus implementation of the Act works to right a preexisting injustice.

How can the benefits and burdens of a program be fairly balanced?¹⁵ "If it is determined that a proposed public health intervention, policy, or program is likely to achieve its stated goals, if its potential burdens are recognized and minimized, and if the program is expected to be implemented in a nondiscriminatory way, a decision must be reached about whether the expected benefits justify the identified burdens."^{15, p. 1781}

Because warning labels simply translate current public health data, and make information more accessible to the public, there are no foreseeable public or individual burdens concerning labeling. Its implementation is certainly justified as the Act aims to decrease morbidity and mortality due to colorectal cancer. Again considering future measures, taxation presents more challenges in balancing consumer burden with the Act's beneficial goals of lowering disease incidence and improving the public's health.

Though the language of the Red Meat Overconsumption Prevention and Control Act is adopted from the Family Smoking Prevention and Tobacco Control Act, and the acts hold similar goals of bettering the public's health while limiting some individual consumer liberties, there are significant differences in the substances the acts control. Tobacco has no widely recognized health benefits. The dangers of its use far outweigh any benefit. Limitation of personal agency and consumer choice in favor of public health practices include laws governing tobacco and alcohol products. Tobacco has no known

health benefit and is overwhelmingly linked to health issues including lung cancer, the most deadly cancer in the United States, claiming 157,000 lives in 2010.⁴ Needless deaths due to smoking, and the suffering and costs associated with lung and bronchial cancer justify legislation limiting the consumption of tobacco products via labeling and taxation.⁵¹ Red meat, on the other hand, is part of our evolutionary history and our government's nutritional guidelines to date.⁴⁶ Beneficial components of red meat include proteins, vitamin B12, iron, and zinc.⁴⁷ However, these nutrients are available in other food sources; food sources inversely correlated to colorectal cancer (as well as obesity and cardiovascular disease) such as broccoli, spinach, sprouts, corn, artichokes, and more.⁶ Meat is a significant part of our evolutionary history; however current practices of meat procurement are vastly different than during the vast majority of our development as a species.³⁵ Our bodies are not adapted to the quantity of meat now readily available.³⁵

The Red Meat Control Act aims to decrease deaths and suffering due to colorectal cancer. Its finite public health goal is to decrease the morbidly and mortality associated with an environmental disease. As part of a larger analysis, however, the Act is congruent with efforts to change the physical and societal food environment of the Nation. Part of the more lofty, abstract goal is the change our culture's relationship with food. A methodology to this end is education such as warning labels and steering consumer decisions with taxation. Though temporarily inconveniencing consumers, the Act strives toward a long-term goal of a healthier Nation. This benefit justifies the burdens of steering consumer decisions.

The Act and the "Fair Process Approach"

The Red Meat Control Act is congruent with the "fair process approach" utilized by the Centers for Disease Control and Prevention (CDC) in pandemic planning and emergency preparedness. Developed by the Ethics Subcommittee of the Advisory Committee to the Director, as requested by the CDC, the "fair process approach" provides structure in evaluation of policy initiatives limiting personal/individual agency to benefit the public's health, or "balancing community interests and individual liberties." The guidelines are as follows.

- Ensuring consistency in applying standards across people and time (treating like cases alike)
- Identifying decision makers who are impartial and neutral
- Ensuring that those affected by the decisions have a voice in decision making and agree in advance to the proposed process
- Treating those affected with dignity and respect
- Ensuring that decisions are adequately reasoned and based on accurate information
- Providing communications and processes that are clear, transparent, and without hidden agendas
- Including processes to revise or correct approaches to address new information, including a process for appeals and procedures that are sustainable and enforceable⁵³

The first guideline presents a challenge to the Act. To consider the overconsumption of red meat in a similar fashion to cigarettes due to its solid evidence of its association with cancer, is to uphold the first guidelines by labeling and taxation. Both products are detrimental to the public health, so to consider them the same and ensure consistency, the Food and Drug Administration must tax and label red meat the same as cigarettes. However, as discussed elsewhere, red meat has more redeeming value than do cigarettes. They cannot be treated identically. Other foods associated directly with cancer, or

indirectly with the mitigating factor of obesity, are not consistently labeled by the FDA as proposed here in The Red Meat Control Act. To rebut, nutritional regulation to better the public's health, in light of rising cancer, obesity and cardiovascular disease rates, must start somewhere. Due to the solid evidence of its correlation with colorectal cancer, and its significance in the Western diet (See Chapters 1 & 2) red meat is an appropriate place to start.

Selecting the Food and Drug Administration as the regulatory body of the Act is appropriate given the FDA's history, beginning with its start-up after *The Jungle*, intended to make the public aware of the plight of meat industry workers, raised concerns regarding the consumer safety. The FDA's authority is based in the Public Health Service enacted in 1944. In theory, the FDA is an impartial and neutral governing body to take on the task of red meat regulation. Interfering corporate interests, and lobbyists' real or speculative power within the FDA, is outside the scope of this public health ethics work. In the case of evaluating the Red Meat Control Act, granting authority to impartial, appropriate leaders is inextricable from requiring the inclusion of the public's voice. Again, because of the Nation's democratic legislative system, representatives should be acting as voices for those affected by FDA regulation.

Labeling is inherently treating the public with dignity and respect as the practice provides consumers the information they need to make sound nutritional decisions for themselves and their families. Labeling of red meat is an intersection of the guideline requiring the treatment of the public with dignity and respect with the duty of the public health field to translate valuable information to the public.

Multiple international and U.S. studies confirm the correlation between red meat and colorectal cancer (See Chapter 2). Utilization of these studies ensures that decisions concerning the public's health, especially when measures limit personal agency, are based on solid scientific evidence and the Act is thus justified. Part of the power of granting authority to the Food and Drug Administration to further label red meat is its flexibility in assessment. The Federal Food, Drug and Cosmetic Act, first enacted in 1938, is amended several times by acts targeting specific public health areas of concern, including the use of methamphetamines and narcotics. The FDA employs experts in the scientific fields, leaders who can appropriately adapt the Act to new information and/or changing food environments.⁵⁴

The Act and the National Goals for Cardiovascular Disease Reduction

Limiting red meat overconsumption is congruent with the National Goals for Cardiovascular Health Promotion and Disease Reduction. The American Heart Association Strategic Planning Task Force and Statistics Committee set the goal of "improving the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular diseases and stroke by 20%" by the year 2020. The Task Force defines ideal health behaviors and ideal health factors. One of the behaviors is individual and public compliancy to a diet consistent with current guideline recommendations. Three of the nine "criteria used in defining ideal cardiovascular health" are particularly pertinent in the assessment of the Act: "be simple and accessible to practitioners to provide guidance in promoting cardiovascular health in their patients, be simple and accessible to individuals to provide nonmedical guidance regarding lifestyle components

of cardiovascular health," and "contain actionable items on which individuals, practitioners, and policy makers could focus to improve cardiovascular health." Again, this framework requires some adjustment to encompass a population-level health policy change, such as the Act, but the ideals and criteria are assistive in analysis. With the field of public health acting as a translator, as is consistent with its ethical practice, knowledge concerning the correlation between the overconsumption of red meat products and colorectal cancer provides accessible guidance to consumers while promoting cardiovascular health. Additionally, as is congruent with Nancy Kass's ethics framework requiring significant, tangible public health improvement to justify intervention of public health policy, ideal cardiovascular health must include tangible, "actionable items," for policy makers to utilized to enact corresponding health policy. For the case of the Red Meat Control Act, the actionable item is the correlations of the overconsumption of red meat with poor health outcomes, and the method of action is labeling and taxation.

"Abundant evidence supports the ideal cardiovascular health construct with respect to longevity, disease-free survival, quality of life, and healthcare costs." Healthcare costs associated with cardiovascular health and colorectal cancer rates of the Nation are discussed in Chapter 8. A key aspect defining ideal cardiovascular health is an "ideal diet score." To make the information tangible and accessible to the public, the ideal diet was researched, and the guidelines were explained in terms of foods, not nutrients. Foods found is ideal diets included fruits and vegetables, fish, whole grains, and less than 36 ounces of sugar-sweetened beverages per week. No red meat products are included in the recommended eating plan published the American Heart Association Strategic Planning Task Force and Statistics Committee. Diets including no processed meats, or

fewer than 2 serving per week are most congruent with a healthy diet score. Utilizing the American Heart Association's concepts of ideal cardiovascular health, the Atherosclerosis Risk in Communities Study concluded that adherence to the ideal health metrics defined in the American Heart Association's 2020 goals correlated to lower cancer rates in study participants. ⁵²

The Red Meat Control Act upholds the principles of the ethical practice of public health, Nancy Kass's public health ethics framework, and goals congruent with bettering the cardiovascular health of the Nation.

Chapter 7: Red Meat, Autonomy, and Labeling

Labeling as a mechanism to decrease red meat consumption and decrease incidences of and death due to colorectal cancer is the primary aim of the Red Meat

Overconsumption Prevention and Control Act. Taxation is also a considered methodology to decrease red meat consumption in the U.S.

Primary opposition to such legislation concerns the restriction of consumer choice and the Act's potential infringement on autonomy of the consumer. Significant lobby powers work against such food taxes and "coercive" practices of government intervention. However, autonomy is respected by making nutritional information more accessible to consumers:

Labeling can help consumers take up their political responsibility. As citizens, consumers have certain reasonable concerns that can justifiable influence the market. In a free-market society, they are, as buyers, co-creator s of the market, and societal steering is partly done by the market. Therefore, they need the information to co-create a market. ⁵², p.127

To create a market congruent with the ethical practice of public health and other public health ethics frameworks would greatly benefit our population's current health struggles of colorectal cancer, obesity, and cardiovascular disease. The Red Meat Overconsumption Prevention and Control Act steps toward a food environment that is consistent with the health and information needs of consumers, or co-creators, of that environment.

Increasing the expensive of red meat decreases red meat purchasing and consumption. ⁵⁶ Therefore taxation is an effective method to limit red meat consumption to better the public's health as taxation makes the product more expensive for consumers.

However, more information and research is needed before its inclusion into legislative efforts, especially concerning vulnerable populations.

More complex is the ethics justifying taxation as a means to limit redmeat overconsumption. A significant piece of this legislative effort is justification of the Red Meat Overconsumption Prevention and Control Act. For the field of ethics, justification requires more than just a listing of reasons, "we therefore need to distinguish a reason's relevance to a moral judgment from its sufficiency to support that judgment, and we need to distinguish an attempted justification from successful justification." ^{55, p.368}

Taxation is an effective, non-invasive methodology to decrease the consumption of red meat an effort to decrease preventable disease and to better the public's health.

Direct-to-consumer taxation raises more issues of respect for autonomy and the possibility of paternalism. However, individuals are frequently discouraged from harmful behaviors by public policy. In the United States, seatbelt laws, educational requirements, taxes on cigarettes, drinking age legalities and other alcohol restrictions all limit personal freedoms for the betterment of individual and systemic health.

Due to the significant health detriments of poor diet in the U.S. the federal government is justified in finding and enforcing urgent solutions. The Red Meat Control Act is an urgent public health intervention aiming to decrease incidence of colorectal cancer, with additional predicted outcomes of decreasing suffering and death due to obesity and cardiovascular disease, while best protecting the public's autonomy in purchasing choices. Labeling allows for accessible information consumers need to make informed nutritional choices; taxation further steers consumer decisions.

Autonomy in Purchasing and Trust in Labeling

Consumer concern and suspicion of the food industry is on the rise in the U.S. surrounding the food industry.^{57,71} In our current food environment, we as consumers are far removed from the source of food; with no direct contact with food sources, such as farms, we rely on government agencies and truth in advertising to confirm food choices.⁵⁷ Labeling as part of the Red Meat Overconsumption Prevention and Control Act strives to address potential consumer concerns around the food industry. Labeling practice is part of an increased transparency congruent with the major initiatives of the Food and Drug Administration. "Consumer concerns are often considered to be signed of a decrease in trust. Maintaining trust in food is not only important for retailers, food industry, and the agricultural sector. The establishment of trust is also important for government, because basic trust in general is important for society."^{57, p.131}

Considerable potential dissent to the Act is that steering consumer nutritional choices infringes on consumer autonomy. However, part of consumer autonomy is the right to be an agent in the life we intend to lead. ⁵⁷ For example, if a consumer wishes to avoid beef for religious reasons, food labeling informing him or her of whether a product contains beef respects the consumer's right to follow the nutritional path of his or her own design. Informing potential buyers of the health risks associated with the overconsumption of red meat respects the rights of consumers to be autonomously selective in their own food environment.

Justification Models

Paternalism, though negatively construed in most medical ethics discussions, can be justified in some cases.⁵⁵ Public health agencies and federal and state laws steer consumer decisions with taxation and labeling. Here, it is argued that the overconsumption of red meat currently practiced in the U.S. is so corrosive to health and the finances of our health system, acting paternalistically is ethically justifiable. An aggressive educational effort through labeling in many ways empowers the consumer with information pertinent to his or her own food environment.

Two models of moral justification are discussed here: top-down and bottom-up. "A top-down model holds that we reach justified moral judgments through a structure of normative precepts that cover the judgments." The model is as follows:

- 1. Every act of description A is obligatory.
- 2. Act *b* is a description of *A*. Therefore,
- 3. Act *b* is obligatory. 55, p. 369

A here is the mandate of the FDA to best protect the Nation's health. The obligation stems from the authority of the FDA granted by our legislative system and the power of the Nation's people. The FDA's own literature proclaims this obligation: "protecting and promoting YOUR health." Limiting overconsumption of red meat is part of protecting and promoting health; therefore act b is the Red Meat Overconsumption Prevention and Control Act. The model justifies that the Act is obligatory given the mandate of the Food and Drug Administration.

Conversely, bottom-up models for ethical justification focus on practical cases to establish moral guidance; the inductivism approach requires the examination of previous cases with similar circumstances and expected outcomes. Inductivists propose that cases and particular judgments provide warrants to accept moral conclusions independently of general norms. They usually see rules and principles as derivative in the order of knowledge, not primary. Case-based reasoning leads us to significant justification for the implementation of the Red Meat Control Act. Such public health efforts are necessary considering our current food environment and the incidence of colorectal cancer in the U.S. Cases are discussed below.

Preceding Cases of Steering Consumer Choice

The Red Meat Overconsumption Prevention and Control Act adopts its language from the Family Smoking Prevention and Tobacco Control Act, an example of federal action to steer consumer purchasing. The Family Smoking Prevention and Control Act limits the sale and advertising of cigarettes and other tobacco products to best protect the public's health from the significant health risks associated with the products. Other preceding measures in include the Combat Methamphetamine Epidemic Act of 2005 as part of the USA PATRIOT Improvement and Reauthorization Act and several state efforts to limit the consumption of sweetened beverages by consumers. Discussion of the public health ethics surrounding the taxation, labeling, and limitation of sales is extensive.

With federal and state tax on tobacco products now routine, other public health interests use a similar model to better the Nation's health, while curbing some autonomy

in purchasing behavior. Justification for the Red Meat Overconsumption Prevention and Control Act can look to recent federal and state efforts to address the obesity epidemic with food taxes and regulation. Kelly D. Brownell, Ph.D., the head of the Yale's Rudd Center for Food Policy and Obesity, and Thomas Farley, M.D., M.P.H, the director of the Centers for Disease Control and Prevention, are working at a federal level to decrease the consumption of sugar-sweetened beverages.

Significant opposition to food taxes comes from lobbying groups with profound conflicts of interest. For example, the industry group "Americans Against Food Taxes" speaks out against state and federal actions including labeling and taxation; "Americans Against Food Taxes" is backed by organizations such as Burger King Holdings Inc, McDonald's Corporations, PepsiCo Inc, and more industry giants that stand to lose revenue should public health efforts succeed in curbing ill-informed purchasing behavior of foods contributing to poor health in the U.S. ⁶⁸ Though at the foreground autonomy and free consumer choice may be the pillars of the opposition's stand against government interference with food purchasing, financial interests work counter to public health efforts, are at the background.

Economists agree that government intervention in a market is warranted when there are 'market failures' that result in less-than-optimal production and consumption. Several market failures exist with respect to sugar-sweetened beverages. First, because many persons do not fully appreciate the links between consumption of these beverages and health consequences, they make consumption decisions with imperfect information. ^{65, p.1599}

Though more research is needed before enactment of red meat taxation, its inclusion in public health policy discourse concerning red meat is demonstrative. Red meat industry taxation policy enacts financial replenishing of state and national

governments, drained by health care costs incurred by the detrimental health effects of red meat consumption.

Foreseeable dissent from case-based justification of the Red Meat Overconsumption Prevention and Control Act, especially using parallels with tobacco, will be based in the value of red meat as a food commodity and cigarettes and tobacco as a non-food commodity. As discussed elsewhere, red meat contains nutrients and proteins. Red meat is part of our evolutionary history; it is not nutritionally superfluous as other products (some would argue, such as sugared beverages). Relying heavily on the epidemiological studies around red meat and colorectal cancer, the Act can be supported in light of this dissent because it aims to decrease, not eliminate, consumption of red meat. Labeling provides accessible information to consumers. Labeling is not coercive nor does it limit consumer options. Similarly, the mechanism of taxation strives to steer consumption away from red meat, but cannot and does not aim to eliminate red meat consumption. The Act itself contains the language overconsumption of red meat for this very reason. Dissenters are correct in that there are valuable nutrients in red meat; in many ways, red meat is a compact, efficient source of calories and protein. However, current practices—factory farming and overconsumption—of procuring of red meat are not congruent with maintaining the public's health nor our evolutionary history.³⁵

Advertising and Public Health Messaging

New public health campaigns, funded by the Affordable Care Act's Prevention and Public Health Fund, are starting an uphill battle to address corporate advertising of cigarettes, fast food, and other products of public health detriment.⁶⁹ Currently there are

no restrictions on the quantity of red meat purchasing; quality of red meat is regulated for quality and contamination control by the Food and Drug Administration. At the federal, state and local levels, public health agencies are using sophisticated, targeted strategies to deliver hard-hitting ads designed to raise awareness of health issues, spark dialogue and change health behaviors. Spark

However, public health messaging is working against enormous advertising efforts by the food and tobacco industries. In 2004, PepsiCo alone spent 127.6 million dollars in advertising in the media.⁷¹ Food industry million dollar advertising efforts presented by Lewin et al in a 2006 health policy piece, illustrating that soft drink companies are just part of an enormous advertising industryt:^{72, p. 329}

The formidable budgets are not presented to deter public health media messages.

Rather, to sugest how direct package labeling might be well placed in the effort to better the Nation's health. The benefit of direct food product labeling is two-fold. The labeling practice of the Red Meat Overconsumption Prevention and Control Act is direct-to-consumers of meat products. Indirect public health messaging canvasses large viewing arenas; some campaigns target certain audiences, but primarily public health messaging casts a wide net. ⁶⁹ Labels on food products, however, directly target those considering the purchase. This direct methodology hopes to fairly inform consumers of the health detriments of the overconsumption of red meat.

The second benefit of labeling is of course cost. Though the regulation of labels is the responsibility of the Food and Drug Administration, the designing, printing, and distribution of packages with those labels add cost burden to the food industry, not publically collected funds.

Chapter 8: Red Meat, Colorectal Cancer, Prevention, and Healthcare Costs

Healthcare spending is on the rise in the U.S.⁷³ In 2005, health care costs associated with obesity of the Nation are estimated near \$190 billion. Overall costs are estimated to be \$2.7 trillion.⁷³ Healthcare colorectal costs exceed 6.5 billion dollars annually.⁸³

The Red Meat Overconsumption Prevention and Control Act focuses on prevention over curative methodology of public health. Part of prevention is creating a healthier food environment in which consumers make nutritional choices. Organizational support for preventative community measures is solid; the American Heart Association advocates for a new National of Institute of Health division focused on health prevention policy and the recently passed Affordable Care Act encourages preventative measures through revised reimbursement strategies.⁷⁵

"Preventive care can help identify health problems early when they are likely to be easier and less costly to treat," said AMA Board Chair Ardis Hoven, M.D. Similarly, Policy favoring prevention over curative measures of health care is favored by the public. ⁷⁶ Public health frameworks make clear the necessity of community input and feedback. The Ethical Practice of Public Health principles relies on key assumptions that require permissions from the public. A research survey of nearly 300 jurors asked participants to consider disability funding, and to determine where they would allocate funds given the authority to do so. Participants allocated the most funding to those with the most significant disability. Pertinent to the justification of the Act, participants also allocated more funding to prevention than curative measures.

Colonoscopies are the most expensive medical procedures healthy Americans routinely pay for; colonoscopies costs thousands in the U.S. and hundreds in other developed nations. When polyps during routine screenings raise concern, more procedures are recommended for follow-up. Unhealthy colons lead to more colonoscopies. Screenings are important medically and are should not be discouraged by the Red Meat Overconsumption Prevention and Control Act or any other. However, should our food environment change to reflect colorectal and cardiovascular health guidelines proposed in the science literature, fewer expensive follow-up procedures will be necessary.

The medical and public health fields are developing toward important prioritization preventative measures, including health policy and educational curriculum changes shaped toward prevention.⁷⁷ The Red Meat Control Act works in tandem with a national trend toward preventative measure over drastic curative measures.

Chapter 9: The Act and the FDA's Authority

The Red Meat Overconsumption Prevention and Control Act is congruent with the major initiatives of the Food and Drug Administration. Major initiatives include globalization, advanced regulatory science, continued dedication to food safety, continued work in tobacco regulation, innovation, and transparency. The Act especially intersects with the goals of advanced regulatory science: "Building on the achievements of existing agency programs to develop new tools, standards, and approaches to assess the safety, efficacy, quality, and performance of all FDA-regulated products." Labeling a precipitating factor such as red meat that is linked to deadly illnesses such as colorectal cancer, cardiovascular disease, and obesity is the development of a new standard for the FDA. To direct its authority toward the issue is to maintain the pillars of public health ethics (See Chapter 6) and fulfill its mission.

The major initiative of increased transparency is congruent with all public health ethics frameworks utilized by this proposal and respects consumer autonomy. Increasing the visibility and accessibility of valuable public health information, as would occur with red meat labeling, is congruent with the pillars of public health ethics and the FDA's declared initiatives. A popular term in medical ethics is patient empowerment. Through education and increased access to health resources, patients become more empowered in the decisions they make about their own healthcare. The Act best protects and upholds the principles and moral commitments of beneficence and non-maleficence by empowering the consumer of red meat products. Warning labels is an aggressive educational effort that is non-prejudicial in its target audience. The labels are made

visible to any consumer. With new and more accessibly information concerning the link between red meat and colorectal cancer, consumers are more empowered to participate in their own preventative medicine. As a whole, then, the Nation is more empowered to take control of its public health.

Finally, the Act aptly intersects the initiative of continued innovation by the FDA. Should regulatory efforts decrease factory farming, the Nation's employment economy will benefit (See Chapter 4). The direct labeling of a food product, with its full integrity, to help protect the public from fatal diseases such as colorectal cancer, is innovative. This proposal explores precedent cases of FDA regulation of products such as tobacco, but red meat labeling is innovative due to red meat's nutritional value. Warning labels on red meat products directly addresses the public health epidemic of obesity and poor nutritional choices in this country. Though such acts may be culturally unpopular (See Chapter 4), striving toward limiting overconsumption of red meat upholds the pillars of public health ethics and the major initiatives of the FDA.

The Food and Drug Administration's mission statement reads as follows:

FDA is responsible for protecting the public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation.

FDA is also responsible for advancing the public health by helping to speed innovations that make medicines more effective, safer, and more affordable and by helping the public get the accurate, science-based information they need to use medicines and foods to maintain and improve their health. FDA also has responsibility for regulating the manufacturing, marketing and distribution of tobacco products to protect the public health and to reduce tobacco use by minors.

Finally, FDA plays a significant role in the Nation's counterterrorism capability. FDA fulfills this responsibility by ensuring the security of the food supply and by fostering development of medical products to respond to deliberate and naturally emerging public health threats.³

In light of new research and consensus within the medical field, the Food and Drug Association moved forward with amending acts to appropriately regulate tobacco products. The Federal Cigarette Labeling and Advertising Act was enacted in 1965. Bl Direct-to-consumer public health "advertising" in the form of labels on cigarette packages were required by the Act; in 1984, the regulated was expanded by the Comprehensive Smoking Education Act. Precedent shows that increasing the accessibility of negative public health information about a damaging product decreases its use. But Utilizing this precedent, of smoking regulation in light of scientific inquiry correlating cigarettes with lung cancer, it is clear that the FDA is failing in its own initiatives by failing to produce policy addressing the overconsumption of red meat and its health consequences.

Federal and State governments are not currently directing the collective authority and resources to address comprehensively the public health detriment of the overconsumption of red meat products. State and federal guidelines are enacted but only pertain to red meat quality, slaughter regulations, and protection of the public from contaminants in meat products, not in the mass quantity of red meat itself.⁸⁰

The public health will be best protected from the detriment of colorectal cancer by the direction of the Food and Drug Administration's authority toward labeling of red meat. Enforcing warning labels on red meat products is congruent with multiple public health ethics frameworks, and most minimally intrudes on consumer autonomy. In fact, with valuable information more accessible, we become better agents in our food environment. Finally, the practice of warning labels on red meat product is congruent with the Food and Drug Administration's own major initiatives and mission statement.

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Appendix I

The "values and beliefs" basing the Principles of Public Health Practice: 39, p. 5

Health

1. Humans have a right to the resources necessary for health. The Public Health Code of Ethics affirms Article 25 of the Universal Declaration of Human Rights, which states in part "Everyone has the right to a standard of living adequate for the health and well-being of himself and his family..."

Community

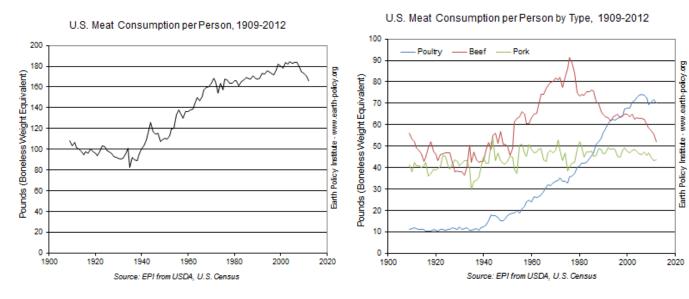
- 2. Humans are inherently social and interdependent. Humans look to each other for companionship in friendships, families, and community; and rely upon one another for safety and survival. Positive relationships among individuals and positive collaborations among institutions are signs of a healthy community. The rightful concern for the physical individuality of humans and one's right to make decisions for oneself must be balanced against the fact that each person's actions affect other people.
- 3. The effectiveness of institutions depends heavily on the public's trust. Factors that contribute to trust in an institution include the following actions on the part of the institution: communication; truth telling; transparency (i.e., not concealing information); accountability; reliability; and reciprocity. One critical form of reciprocity and communication is listening to as well as speaking with the community.
- 4. Collaboration is a key element to public health. The public health infrastructure of a society is composed of a wide variety of agencies and professional disciplines. To be effective, they must work together well. Moreover, new collaborations will be needed to rise to new public health challenges.
- 5. People and their physical environment are interdependent. People depend upon the resources of their natural and constructed environments for life itself. A damaged or unbalanced natural environment, and a constructed environment of poor design or in poor condition, will have an adverse effect on the health of people. Conversely, people can have a profound effect on their natural environment through consumption of resources and generation of waste.
- 6. Each person in a community should have an opportunity to contribute to public discourse. Contributions to discourse may occur through a direct or a representative system of government. In the process of developing and evaluating policy, it is important to discern whether all who would like to contribute to the discussion have an opportunity to do so, even though expressing a concern does not mean that it will necessarily be addressed in the final policy. Values and Beliefs Underlying the Code
- 7. Identifying and promoting the fundamental requirements for health in a community are of primary concern to public health. The way in which a society is structured is reflected in the health of a community. The primary

concern of public health is with these underlying structural aspects. While some important public health programs are curative in nature, the field as a whole must never lose sight of underlying causes and prevention. Because fundamental social structures affect many aspects of health, addressing the fundamental causes rather than more proximal causes is more truly preventive.

Bases for Action

- 8. Knowledge is important and powerful. We are to seek to improve our understanding of health and the means of protecting it through research and the accumulation of knowledge. Once obtained, there is a moral obligation in some instances to share what is known. For example, active and informed participation in policy-making processes requires access to relevant information. In other instances, such as information provided in confidence, there is an obligation to protect information.
- 9. Science is the basis for much of our public health knowledge. The scientific method provides a relatively objective means of identifying the factors necessary for health in a population, and for evaluating policies and programs to protect and promote health. The full range of scientific tools, including both quantitative and qualitative methods, and collaboration among the sciences is needed.
- 10. People are responsible to act on the basis of what they know. Knowledge is not morally neutral and often demands action. Moreover, information is not to be gathered for idle interest. Public health should seek to translate available information into timely action. Often, the action required is research to fill in the gaps of what we don't know.
- 11. Action is not based on information alone. In many instances, action is required in the absence of all the information one would like. In other instances, policies are demanded by the fundamental value and dignity of each human being, even if implementing them is not calculated to be optimally efficient or cost-beneficial. In both of these situations, values inform the application of information or the action in the absence of information.³⁹

Appendix II: U.S. Meat Consumption Data from the Earth Policy Institute



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