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AGENT ORANGE : RESOLVING A PAINFUL VIETNAM WAR LEGACY

INTRODUCTION

The recent \$180 million out of court settlement in the "Agent Orange" case leaves unresolved one of the most painful legacies of the Vietnam War, the continuing controversy over the health effects of the chemical herbicide. Many Vietnam War veterans believe that the substance has caused a number of illnesses which they have incurred, and produced birth defects in some of their children. More important, the veterans feel that the Veterans Administration, the Department of Defense and Congress have not responded to their complaints. As a result, some of these veterans are pushing for legislation which, though well-meaning, could have very damaging effects.

At the heart of the controversy lies the dilemma of how best to deal with latent illnesses--diseases which manifest themselves years or even decades after a soldier is out of uniform. While the nation justifiably is obliged to provide medical treatment for injuries or illnesses incurred as a consequence of military service, establishing the cause and effect relationship between a latent disease and military service often can be extremely difficult.

The uncertainties surrounding the health effects of Agent Orange have led some in Congress to demand blanket compensation for all veterans who served in Vietnam--regardless of the medical evidence. Yet in the long run, this could undermine the long-standing commitment of the U.S. to provide medical care and, where appropriate, compensation, for Americans with service-connected health problems.

One problem is that the blanket compensation approach does not differentiate between those illnesses that merely require medical treatment, and those that are disabling. Moreover, by

focusing exclusively on Agent Orange, legislation may jeopardize future claims by veterans affected by other hazards. Most important, by awarding compensation to veterans, irrespective of the medical evidence, the legislation threatens to undermine the foundation of veterans benefits: the notion that eligibility for treatment or compensation derives from reasonable medical evidence indicating that the illness or injury was a consequence of military service.

Should this standard be undermined, the veteran's compensation system could become as vulnerable to political manipulation as other entitlement programs, allowing claimants with sufficient political clout to win benefits regardless of the merits of their case. Therefore, it is necessary to devise a system whereby a link between a latent illness and military service can be established beyond a reasonable doubt, but which does not entail undue delays in processing claims. To achieve this goal, it may be necessary to deemphasize the identification of specific causes of specific illnesses, and instead, use statistical techniques to identify broad classes of illnesses that afflict veterans to a disproportionate degree. This could be accomplished through the use of epidemiological studies,¹ which focus on discovering which illnesses statistically can be attributed to military service. Use of such studies eliminates the need to identify a specific environmental factor that caused the disease, or the need to prove that a veteran was exposed to it. By demonstrating that veterans are suffering from an extremely high incidence of a specific illness--say malaria--the Veterans Administration then could allow a presumption of service connection entitling the veteran to treatment.

Three ongoing studies of the health of Vietnam veterans should be undertaken to determine if they are suffering from particular illnesses in greater proportions than the population at large. The first study should focus on those veterans involved in operations that made exposure to chemical herbicides very likely. The second study should focus on all troops who served in Vietnam. The third study should examine all who were in uniform during the Vietnam War.

The results of these studies should be reviewed by a panel of experts, who would be allowed to make a presumption of service connection where the statistical evidence warranted.

There are several advantages to this approach. First, it would aid preventative measures, since the servicemen exposed

¹ Epidemiological studies use statistical analysis to help identify diseases before they become serious health problems, and to monitor the spread of diseases within specific populations. Examples of this approach include the annual cancer statistics announced each year which identify high-risk groups, and the recent work done by the Center for Disease Control identifying groups that are susceptible to AIDS.

earliest would be the first to manifest symptoms, allowing screening and early treatment of other Vietnam veterans. Second, it would not tie treatment to establishing the cause of the illness. This avoids the spectacle of veterans left to languish while a medical debate goes on about the cause of their disease. Most important, since the panel would be allowed to make a presumption of service connection without additional approval from either the Congress or the VA, it would depoliticize the process of making such determinations. This would both expedite timely treatment for veterans, and help to prevent unscrupulous individuals from using their complaints for political gain.

Such ongoing epidemiological studies would have consequences going far beyond the immediate problem of chemical herbicides. The approach would create a mechanism for dealing with other latent diseases incurred as a result of military service as well. The importance of having such a mechanism in place cannot be overestimated. The experience of modern warfare suggests that latent diseases will become an increasing problem for those charged with the care of veterans. If the nation is to honor its obligations to those who don its uniform, the mechanism will be essential.

THE NATION'S OBLIGATION

America always has recognized a special responsibility to care for those who suffer injury or illness as a consequence of military service. In one of its first acts, the Continental Congress voted pensions for servicemen disabled in Revolutionary War battles. After each succeeding conflict, Congress enacted legislation providing similar compensation.

For a nation that must rely on a primarily citizen army, recognizing this special obligation to veterans is a moral and a practical imperative. To expect soldiers to bear the cost of treatment for injuries or illnesses incurred during military service would be an inexcusable inequity. Moreover, should the nation fail to fulfill its moral obligation to disabled veterans, it could soon find very few citizens willing to wear their country's uniform.

The trouble today is that the question of what constitutes a service-connected injury or illness is less clear than it once was. A bullet wound or saber cut is one thing. Quite different are the hazards on the modern, high-technology battlefield. Not only does it hold more varied dangers, but in many cases the symptoms of injuries do not appear until years after the last shot is fired.

THE PROBLEM OF CAUSALITY

"Latent" Illnesses

At the root of the problem are so-called latent illnesses, that is, health conditions that might not be apparent for many years after a serviceman has completed his military tour. Latency creates a number of dilemmas for officials attempting to determine causal connection between illness and military service. Medical evidence is often vague. If a war-related chemical or biological agent is responsible for ill health, for instance, it may have been eliminated from the serviceman's system long before the veteran is examined for the illness, making the cause very difficult to determine. This difficulty can result in servicemen being denied medical assistance to which they are entitled. This, in turn, has created pressure on Congress to "do something" about the alleged unfairness.

The current controversy over "Agent Orange" exemplifies the "latent disease" problem. The herbicide was used extensively during the Vietnam War. After several years, it was discovered that Agent Orange contained minute amounts of a contaminant known as TCDD, or Dioxin, a highly toxic substance known to cause serious health effects in laboratory animals. Exposure to high levels of Dioxin has been found to cause a severe skin disease called chloracne among workers involved in certain industrial accidents. It is also suspected of causing a number of other health problems.

Many veterans are convinced that the Dioxin contaminant in Agent Orange is responsible for a wide range of illnesses suffered by Americans who served in Vietnam, including skin rashes, soft-tissue sarcomas (cancers) and birth defects in their children. Yet, the recent out-of-court settlement of a class-action lawsuit against the manufacturers of Agent Orange suggests that attorneys for the veterans acknowledge that a causal link would be very difficult to prove.

Agent Orange Legislation

In addition to the class-action lawsuit, veterans have been lobbying Congress for legislation that would provide a presumption of service-connection between certain illnesses and Agent Orange exposure, whether or not medical evidence supports such claims. Despite the \$180 million settlement, congressional interest in legislation is still strong and the question of how to deal with latent diseases continues to confront the nation.

While there is little doubt that the veterans have genuine fears regarding the consequences of Agent Orange, there are a number of concerns prompted by the current moves in Congress. First, some Members are promoting a blanket presumption of service-connection for a wide range of illnesses despite the lack of any clear medical evidence to support such an action.

What this means is that the Veterans Administration would be required to presume that the illnesses in question were caused by some factor encountered during military service even though the medical evidence is at best inconclusive, and in some instances would indicate that the problems were caused by something other than military service. While it may be necessary to allow a presumptive finding at some point, to do so in all cases, with total disregard for medical evidence, would set a dangerous precedent. It would open the way to compensation for claimants on the basis of political clout rather than the merits of their case. This would undermine the most basic assumption underlying entitlement to Veterans Administration treatment: that the illness was demonstrably a consequence of military service.

A second problem concerns the congressional focus on compensation. The flaw here is that many of the illnesses associated with Dioxin contamination, such as simple skin rashes, are unlikely to warrant compensation. A more reasonable emphasis would be the assurance of medical treatment. Traditionally a distinction has been drawn between medical problems eligible for treatment in VA hospitals, and those for which disability compensation is paid--the rules concerning treatment being far more liberal than those concerning compensation. By authorizing blanket compensation to all veterans who may have suffered some health effects from Dioxin exposure, the congressional proposals ignore this important distinction.

A third problem is that the legislation focuses on Agent Orange to the exclusion of other substances or environmental factors that may have had long-term health consequences for Vietnam veterans. This may work to veterans' disadvantage in the long run, since there were many potentially hazardous substances to which troops were exposed. Attributing illnesses to Agent Orange which might be caused by other substances undermines the credibility of the case veterans are trying to make concerning the herbicide, and shifts attention from the serious problems that could arise from these other factors.

Officials face a complex dilemma. They have a duty to protect the VA system's integrity. Yet any serviceman who has incurred an illness as a consequence of military service is clearly entitled to medical treatment--and to compensation when appropriate. So officials must first determine if a reasonable case can be made to link exposure to Dioxin through Agent Orange spraying to any specific illnesses. Secondly, they must determine which soldiers were likely to have been exposed. And they must do this in a timely fashion if they are to be of real help to the victims.

The Agent Orange debate is likely to set a precedent for the treatment of latent diseases. The mechanisms devised will thus have consequences not only for veterans of the Vietnam War, but also for those of future conflicts.

Identifying the Exposed Population

One common misconception regarding Agent Orange is the notion that everyone who served in Vietnam was exposed to it. Between 1965 and 1970, some 10 to 12 million gallons of the substance were used by the U.S. Command; this use was restricted to about 10 percent of the country's land area. Most was sprayed from fixed wing aircraft, although a small amount was applied from helicopters, trucks and backpacks. The amount sprayed over any area could vary considerably, depending on enemy troop activity, tactical importance, and a variety of other factors.

The Air Force has relatively good records of Agent Orange missions. These records are available in a computerized form--the so-called Herbs Tapes. The Air Force data are enhanced by Army records concerning other applications of Agent Orange. While imperfect, these records cover almost all the military operations using Agent Orange. By combining them with the records concerning the disposition of troops, it is possible to identify the areas and times when Agent Orange exposure to particular troops was significant. Some notion of the at-risk population, therefore, can be derived. Just such a correlation is currently being performed in conjunction with the Center for Disease Control study of the health of Vietnam veterans.

While the correlation of data concerning spraying missions and ground activity can give some sense of the potentially at-risk population, it will not yield a comprehensive list of such individuals. Military records are incomplete, so there will be some individuals improperly listed. Despite its limitations, however, such a correlation gives a good idea of the size of the exposed population and provides a reasonable basis for further medical investigation--particularly with regard to conducting epidemiological studies.

Further Complications

There are a number of other problems which make identifying Agent Orange's health effects particularly difficult. First is the determination of the specific dose any individual received. Further complicating the matter is that other potentially hazardous substances, including herbicides, were used in addition to Agent Orange. Agents Purple, Green, and Pink, for instance, all contained Dioxin concentrations far higher than that found in Agent Orange. And while Agent Blue was free of Dioxin, it did contain 15.4 percent arsenic. Moreover, Dapsone, a drug soldiers were required to take as a prophylactic against malaria, is now known to cause a variety of liver problems, and possibly even cancer.

Such complicating factors do not, of course, absolve the government of the responsibility of trying to assess the risks associated with the use of herbicides, but they make the task more difficult. Thus it is necessary to go beyond the data available on Vietnam spraying by reviewing other information

available concerning Dioxin exposure and its demonstrable health effects.

STUDIES OF DIOXIN EXPOSURE

A number of studies have been conducted of workers exposed to high levels of Dioxin through industrial accidents. These exposures differ from the cases of Vietnam veterans in that the levels of Dioxin involved in the industrial situation were far higher, and so the health effects are likely to be more severe than those affecting Vietnam veterans.

A number of industrial accidents resulting in widespread Dioxin exposure have occurred. The earliest incident on record occurred in 1949 at Nitro, West Virginia. There also have been accidents at Seveso in Italy, Bolsover in the United Kingdom, Ludwigshafen in West Germany, and Amsterdam. Data are also available on the widely publicized incidents at Times Beach, New York, and Imperial, Missouri, involving the spraying of contaminated waste oil.

In virtually all of the industrial accidents, studies of the exposed populations yield similar results: the only major effect of Dioxin exposure widely reported was an increased incidence of chloracne, a skin disease characterized by large pus-filled fistulas on the face, neck, and occasionally other parts of the body which can cause permanent scarring. Chloracne normally disappears over time, but can evidence itself for some years after exposure to Dioxin. In Seveso, Bolsover, and Ludwigshafen, there were reports of possible transitory effects on the liver and kidneys. But in each of these incidents, the effects cleared up in a short time.

In addition to the studies of industrial accidents, studies have been performed on forestry and agricultural workers exposed over an extended period of time to the herbicide used in Agent Orange. These examined workers as far apart as New Zealand, Washington state and Finland. In no case did the evidence support the contention that the chemicals are associated with an increased incidence of birth defects or soft tissue cancers.

Perhaps the most important study of the effects of Agent Orange is the so-called Ranch Hand Study, which analyzed the effects of Agent Orange on the participants in "Operation Ranch Hand," the name given to herbicide spraying missions. Initiated by the Air Force in 1979, the study examined 1,260 Air Force personnel repeatedly exposed to Agent Orange during their Vietnam tours. Extensive testing of these personnel included morbidity and mortality studies, face to face interviews, psychological testing, and laboratory studies.

The results of the Ranch Hand study's initial phase (a 20-year follow-up is still to come) were released in June 1983.

They showed no increase in soft tissue sarcomas, and no increase in the number of deaths over the control group. There was some indication of an increase in skin cancer, and of liver problems, but the study concluded that the data do not suggest a conclusive link between these illnesses and Agent Orange.

What may become the definitive study has been initiated for the Center for Disease Control (CDC) in Atlanta, under an inter-agency agreement with the Veterans Administration. The CDC's mandate is to undertake an epidemiological analysis of persons who were exposed to Agent Orange while serving in the armed forces. Results of the CDC study are anticipated in about three years. One major contribution already made by the CDC effort, however, is in helping create a mechanism for identifying the at-risk population through a computer match up of the Herbs Tapes and data on disposition of ground forces.

RESOLVING THE ISSUE

The most perplexing aspect of the Agent Orange controversy is that while the data concerning the potential health effects of the herbicide give no cause for alarm, the evidence is not conclusive. In this respect, the controversy is a salient example of the general problem of latent diseases. There may, however, be a solution to the broader problem of latent diseases inherent in some of the steps currently being taken to deal with complaints about the herbicide. Of particular interest is the use of an epidemiological approach to the problem.

It is extremely difficult, if not impossible, to identify with certainty the specific cause of a latent disease. For soldiers who served in Vietnam, the problem is compounded by the fact that there were chemical and natural substances in the daily environment of servicemen that posed substantial risks. In some cases, the risks were unknown at the time; in others they may have been known, but were outweighed either by military necessity or by perceived benefits. For example, although Dioxin was known to be a toxic substance--and extensive efforts were made by at least one manufacturer, Dow Chemical Corporation, to eliminate it from the herbicides--it must be recalled that the role of the herbicides was to eliminate the heavy foliage cover which allowed the enemy to mount ambushes. Exposing the enemy saved countless American and Vietnamese lives. It could be argued that these saved lives far outweighed the potential health hazards to ground forces in the area where Agent Orange was used. And although Dapsone is now known to have deleterious health effects in some individuals, fully two-thirds of U.S. personnel contracted malaria before it came into use. Dapsone slashed occurrences of malaria dramatically. Here again, the benefits may have outweighed the risks.

WHAT SHOULD BE DONE?

Since establishing causality between many illnesses and military service is so difficult, identifying the specific causal

agent should be of secondary consideration. The primary task should be to establish a basis for acknowledging service-connection. One way of doing this is to monitor the at-risk population (which could be identified in the Agent Orange case through a computer correlation of the Herbs Tapes and troop disposition reports) and determine if these veterans suffer a greater incidence of any illness in significantly greater proportions than the general population. Where this is found to be the case, a presumption of service-connection could be made, entitling the veteran to treatment.

To accomplish this, a panel should be assembled of medical experts from a wide range of disciplines. They should oversee a three-tiered epidemiological study of the health of Vietnam veterans. The first tier would be those veterans who might have been exposed to Agency Orange. Most combat veterans would be included in this group. The second tier would include all service personnel who served in Vietnam. The third would include all who were in uniform during the Vietnam War.

The panel would be allowed to make a presumption of service-connection on the basis of epidemiological studies for specific illnesses. Such a finding would allow veterans with such illnesses to go through normal VA procedures to obtain medical treatment, and compensation where appropriate. The panel would also be empowered to consider other medical evidence to ensure that small groups of veterans who may have been exposed to some specific hazard, but whose numbers would not be sufficient to manifest a change in the larger epidemiological figures, would have their claims considered.

A major advantage of such studies is that they would make it possible to identify latent illnesses early. If a latent illness were caused by some specific environmental factor to which troops were exposed in Vietnam, then it stands to reason that those who served during the early years of the war would be the first to manifest symptoms. When the appearance of such latent illness was noted among veterans who were among the first to serve in Vietnam, others who served later could be notified to come in for tests to determine if they too might have the disease in an earlier stage. This screening process would allow the vast majority of veterans who had a specific illness to be treated early--and in many cases cured before the illness becomes serious. This is especially important in the case of cancer, which often can be cured if detected early on, but which is often fatal in its later stages. Most important, this approach would depoliticize the process and return the focus of attention to where it belongs: treating the veteran.

This approach would solve many of the problems currently confounding attempts to deal with Agent Orange. First, it would focus on the illnesses linked statistically with service, rather than on isolating the specific cause of illness in each veteran. This means treatment could proceed in a timely fashion. More important, it would depoliticize the process and answer concerns that the presumption of service-connection be based on reasonable

medical evidence. It also would help to emphasize preventative medicine, rather than chronic, long-term treatment of terminal patients--an approach that is clearly preferable to the veteran, and less costly to the taxpayer. Most important, such an approach would deal with all latent illnesses which the veteran may incur, not just those possibly associated with Agent Orange. So it could avoid a repetition of the controversy surrounding the health effects of chemical herbicides.

CONCLUSION

As with so many aspects of the Vietnam War, the controversy over the use and health effects of Agent Orange has been a wrenching experience for the veteran and for the nation. Worse, some have tried to use the fears of veterans who believe they suffer from illnesses caused by the herbicide as a means of painting those veterans as war victims, and thereby call into question their service. The North Vietnamese have tried to use unsubstantiated claims that Agent Orange caused adverse health effects among their civilian population as a means of diverting attention from Hanoi's callous use of chemical weapons against civilians in Laos and Cambodia. Unfortunately, this demagoguery and manipulation has tended to cloud the real concerns veterans have expressed. It is important that these be addressed seriously and quickly, not only to meet the immediate needs of the men and women who served in Vietnam, but so that mechanism can be established to deal with latent illnesses as a general problem.

The issue of latent illnesses has become a characteristic of modern warfare. It is important for Americans to understand that a war zone has no close analog in civilian life. Even high-risk occupations such as firefighting and police work differ from military service in one important respect: a civilian can always refuse to accept a risk; a soldier cannot. Moreover, military commanders do not have the luxury of minimizing the risks to their troops: caution is in many cases the surest road to defeat and heavy casualties. This means that the standards applied to civilian occupations simply cannot be applied to military service. It also means that the nation's obligation to provide medical treatment, and compensation, where appropriate, is all the more critical. Moreover, it is an obligation which does not end when a soldier takes off his uniform.

Milton R. Copulos
Senior Policy Analyst

Milton R. Copulos is a disabled veteran who served with elements of the 25th Infantry Division between 1967 and 1969. He was awarded the Bronze Star and Army Commendation Medals among other decorations.