



Economic Impact Analysis Virginia Department of Planning and Budget

18 VAC 120-40 – Professional Boxing and Wrestling Event Regulations
Department of Professional and Occupational Regulation
January 18, 2009

Summary of the Proposed Amendments to Regulation

The Department of Professional and Occupational Regulation (DPOR) proposes to require boxers and participants in mixed martial arts matches to test negative for certain blood borne illnesses. DPOR also proposes to clarify that all regulated medical waste must be disposed of in accordance with Department of Environmental Quality (DEQ) regulations.

Result of Analysis

The benefits likely exceed the costs for several of these proposed changes. Costs and benefits are discussed below.

Estimated Economic Impact

The Department of Professional and Occupational Regulation (DPOR) proposes to newly require boxers and participants in mixed martial arts matches to provide negative results on tests for the antibodies associated with Acquired Immune Deficiency (AIDS) and hepatitis C, as well as a negative result for a hepatitis B surface antigen test (HBsAG), in order to be able to participate in scheduled matches. Tests will have to be conducted within 180 days of the event.

Affected boxers and mixed martial arts fighters will likely incur costs for this required testing. While local health departments offer tests for these diseases without fee, individuals are not typically able to set an appointment for testing and would typically experience long wait times. Individuals who choose to be tested at a local health department will likely incur implicit costs for time spent waiting for testing rather than working or engaging in some other alternate activity. Individuals who choose private testing will incur fees for a doctor's office visit and for

the costs of the tests given (testing kits for hepatitis B cost between \$70 and \$80, HIV and Hepatitis C kits cost approximately \$50 each).

Requiring a negative result on generalized antibody tests for HIV and hepatitis C will likely produce a benefit for participants in covered events as it will, in most instances, eliminate the very small chance that they could catch these diseases through contact with the blood of their opponents. Both of these diseases can be deadly and cannot be cured. A small percentage of people who contract hepatitis C (about 20%) will be able to fight off the disease and will, as a consequence, temporarily test positive for antibodies without being contagious. The remaining 80% of affected individuals will be able to pass the disease to others. There is no hepatitis C antibody test currently available that can distinguish between antibodies that exist because an individual has recently cleared the disease from his body (and is not currently contagious) and antibodies that are carried by individuals who are contagious. Because these two diseases have very low to zero clearance rates¹ and the best antibody tests available cannot distinguish whether the disease has been recently cleared, the costs associated with antibody testing for these two diseases is likely outweighed by the benefit of eliminating the small chance that these devastating diseases would be spread through blood contact while fighting.

Testing for the antibodies of hepatitis B, however, presents a special case that benefits from different treatment in these proposed regulations. In contrast to hepatitis C, hepatitis B has a clearance rate of 90% to 98%. Individuals who contract, and then clear, hepatitis B will develop antibodies to the disease that make them immune to contracting the disease again. Additionally, there is a vaccine for hepatitis B which causes the body to produce antibodies which convey (likely temporary) immunity. While there is no curative medical treatment for hepatitis B once contracted, the chances of a healthy adult ending up with a hepatitis B infection that persists is relatively small (2% to 10%).

Hepatitis B also presents a special case because several antibody tests are available with results giving various pieces of information about the status of the tested individual.² A positive result on a hepatitis B surface antigen test (HBsAG), for instance, means that the individual has a

¹Clearance is defined here as the percentage chance that the body's own immune system can fight off a disease so that the individual is no longer infected.

² Information about hepatitis B from Dr Deborah Wexler at <http://www.comeunity.com/adoption/health/hepatitis/wexler.html>

current, active hepatitis B infection and is able to pass that infection to others. A positive test for antibodies to hepatitis B core antigens (anti-HBc or HBc-Ab test) combined with a negative result for the HBsAg test, indicates that the individual is immune after clearing a natural infection and is not contagious. A positive test for antibodies to hepatitis B surface antigens (anti-HBs), combined with negative results for both HBsAg and anti-HBc tests, would indicate immunity due to vaccination.

Because there are several tests available for hepatitis B antibodies, and because positive results on several of these tests are not necessarily indicative of an individual who is able to spread this disease, DPOR proposes to require fighters to present a negative result for the specific hepatitis B antibody test (HBsAG) that indicates the presence of the active disease. This proposed change will likely benefit fighters by eliminating the very small chance that they might contract hepatitis B through contact with the blood of an opponent who is contagious.

Although these regulations are currently silent on the disposal of medical waste, affected entities are generally bound by all statutory and administrative law in the Commonwealth. Accordingly, no affected entity is likely to incur any costs on account of the proposed reminder that they are bound by DEQ regulations for disposal of medical waste. On the other hand, these entities might benefit from having this explicit reminder in regulations that they are likely more familiar with.

Businesses and Entities Affected

These proposed regulations will affect all boxers and mixed martial arts fighters in the Commonwealth. DPOR reports that, on average, 100-125 individuals per year would be subject to the proposed testing requirements.

Localities Particularly Affected

No locality will be particularly affected by this proposed regulatory action.

Projected Impact on Employment

To the extent that requiring testing for the antibodies of certain diseases limits the number of eligible fighters in the Commonwealth, participation in boxing and mixed martial arts events may decrease marginally.

Effects on the Use and Value of Private Property

This regulatory action will likely have no effect on the use or value of private property in the Commonwealth.

Small Businesses: Costs and Other Effects

To the extent that affected fighters are private contractors who must declare their earnings as business revenues, they would qualify as small businesses. These individuals will incur costs for testing and, potentially, lost revenue on account of these proposed regulations.

Small Businesses: Alternative Method that Minimizes Adverse Impact

There is likely no alternative testing proposal that would be less intrusive/costly than these proposed regulations and would accomplish DPOR's goal of decreasing the possibility of fighter's spreading dangerous diseases.

Real Estate Development Costs

This regulatory action will likely have no effect on real estate development costs in the Commonwealth.

Legal Mandate

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.H of the Administrative Process Act and Executive Order Number 36 (06). Section 2.2-4007.H requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. Further, if the proposed regulation has adverse effect on small businesses, Section 2.2-4007.H requires that such economic impact analyses include (i) an identification and estimate of the number of small businesses subject to the regulation; (ii) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the regulation, including the type of professional skills necessary for preparing required reports and other documents; (iii) a statement of the probable effect of the regulation on affected small businesses; and (iv) a

description of any less intrusive or less costly alternative methods of achieving the purpose of the regulation. The analysis presented above represents DPB's best estimate of these economic impacts.