



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

November 19, 2010

S. 1649 **WMD Prevention and Preparedness Act of 2009**

*As ordered reported by the Senate Committee on Homeland Security
and Governmental Affairs on November 4, 2009*

SUMMARY

CBO estimates that S. 1649 would authorize the appropriation of \$945 million over the 2011-2015 period for programs in the Department of Homeland Security (DHS), the Department of Health and Human Services (HHS), and other agencies to address the threat of weapons of mass destruction.

Assuming appropriation of the necessary amounts, CBO estimates that implementing S. 1649 would cost \$720 million over the 2011-2015 period. Enacting the bill could have an insignificant effect on revenues; therefore, pay-as-you-go procedures apply. Enacting S. 1649 would not affect direct spending.

S. 1649 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) because it would require public and private laboratories and other facilities to comply with new security standards. The number of entities that would be affected and the types of security measures to be required would depend on future regulatory actions; therefore, CBO cannot estimate the costs of the mandate. Consequently, CBO cannot determine whether the costs would exceed the annual thresholds for intergovernmental or private-sector mandates (\$70 million and \$141 million, respectively, in 2010 adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 1649 is shown in the following table. The costs of this legislation fall within budget functions 150 (international affairs), 270 (energy), 350 (agriculture), 450 (community and regional development), 550 (health), 750 (administration of justice), and 800 (general government).

	By Fiscal Year, in Millions of Dollars					2011-2015
	2011	2012	2013	2014	2015	
CHANGES IN SPENDING SUBJECT TO APPROPRIATION^a						
DHS Programs						
Estimated Authorization Level	112	117	118	78	29	454
Estimated Outlays	38	52	65	69	75	299
HHS Programs						
Estimated Authorization Level	84	69	63	65	66	347
Estimated Outlays	32	74	66	62	64	298
Other Programs						
Estimated Authorization Level	31	31	31	25	26	144
Estimated Outlays	18	26	29	25	25	123
Total Changes						
Estimated Authorization Level	227	217	212	168	121	945
Estimated Outlays	88	152	160	156	164	720

Note: DHS = Department of Homeland Security; HHS = Department of Health and Human Services.

a. In addition to the costs shown above, enacting S. 1649 could affect revenues, but CBO estimates that any such effects would be insignificant.

BASIS OF ESTIMATE

For this estimate, CBO assumes that the bill will be enacted before the end of 2010, that the necessary amounts will be appropriated near the start of each fiscal year, and that spending will follow historical patterns for similar activities.

Spending Subject to Appropriation

DHS Programs. CBO estimates that S. 1649 would authorize the appropriation of \$454 million over the 2011-2015 period for several DHS programs and activities. Assuming appropriation of the necessary amounts, CBO estimates that outlays would total \$299 million over that time period.

S. 1649 would authorize the appropriation of \$50 million annually over the 2011-2014 period for the Federal Emergency Management Agency (FEMA) to make grants to state, local, and tribal governments and nonprofit institutions to improve security at laboratories that contain certain toxins. The bill also would authorize the appropriation of \$15 million in 2011 and \$20 million for each of 2012 and 2013 for FEMA to make grants to states to

help individuals and communities prepare for natural disasters, acts of terrorism, and other catastrophes. CBO estimates that implementing those grant programs would cost \$107 million over the 2011-2015 period and an additional \$148 million after 2015.

The legislation would authorize the appropriation of \$20 million annually over the 2011-2013 period for DHS to establish a program to distribute antidotes and medical countermeasures to emergency-response providers and their families. CBO estimates that this program would cost \$60 million over the 2011-2014 period.

S. 1649 would authorize appropriations for the existing National Bioforensics Analysis Center, which collects, stores, and analyzes evidence from acts of bioterrorism and other crimes. The bill would authorize the appropriation of such sums as may be necessary for the center. For fiscal year 2010, the Congress appropriated about \$17 million for the National Bioforensics Analysis Center. CBO estimated future funding levels by adjusting the 2010 level for anticipated inflation. We estimate that this provision would cost about \$86 million over the 2011-2015 period.

In addition, S. 1649 would require DHS to establish regulations for instituting security measures at laboratories that contain certain toxins and to enforce those measures. The bill would require DHS to establish guidelines for emergency service personnel to improve the response to incidents involving weapons of mass destruction. The legislation also would require the department to develop and disseminate plume models (assessments of the spread of radioactive and other fallout from weapons of mass destruction) to appropriate emergency-response officials. Based on the costs of similar activities, CBO estimates that it would cost DHS about \$46 million to carry out these provisions over the next five years.

HHS Programs. CBO estimates that implementing S. 1649 would require the appropriation of \$347 million over the 2011-2015 period for activities to be conducted by the Department of Health and Human Services; resulting outlays would total \$298 million over the five-year period.

S. 1649 would modify and expand the requirement for the Secretaries of HHS and Agriculture to create a tiered list of certain toxins considered threats to the United States; that list was established in an executive order issued on July 2, 2010 (Executive Order 13546). The bill would require those agencies to provide DHS with a list of locations that store those toxins. DHS would develop and enforce the security regulations for facilities that contain those toxins.

S. 1649 also would require the Secretary of HHS to:

- Establish a list of biological toxins that could pose a threat to the health of individuals, animals, or plants, and maintain a database of the laboratories that possess those toxins, the individuals in contact with them, and any facilities that could be misused for the purpose of developing a biological weapon;
- Ensure that the appropriate agencies have access to the databases that maintain information regarding dangerous toxins; and
- Regulate the distribution, synthesis, and handling of variola virus DNA, which is used by research entities to prevent or treat smallpox.

Based on information from HHS and accounting for overlapping activities specified in the executive order, CBO estimates that those provisions would cost \$36 million over the 2011-2015 period.

S. 1649 would require HHS to establish and implement a strategy for dispensing antidotes or other countermeasures to mitigate the effects of a terrorist attack with chemical, biological, radiological, or nuclear materials. Those activities would overlap to a considerable degree with activities under Executive Order 13527, issued on December 30, 2009; that order requires the Secretaries of DHS and HHS to establish mechanisms for providing medical countermeasures following a biological attack.

The legislation also would:

- Direct each agency in the executive branch to develop a plan to dispense countermeasures to its employees in certain facilities. The Secretary of HHS would review and approve those plans and establish a set of best practices applicable for entities in the private sector.
- Expand an existing program established by HHS that uses the U.S. Postal Service to deliver medical countermeasures in the event of an emergency. The program would be expanded to five cities in the first year and 15 cities in the second year, contingent upon the voluntary participation of additional jurisdictions.
- Require HHS to conduct a pilot program to study the feasibility of providing personal medical kits to the public. The medical kits would include antibiotics and other medical countermeasures as determined by HHS.

Based on information from HHS and accounting for activities already required by that executive order, CBO estimates that implementing those provisions would cost \$262 million over the 2011-2015 period.

Other Programs. CBO estimates that S. 1649 would authorize the appropriation of \$144 million over the 2011-2015 period for other programs and activities. Assuming appropriation of the necessary amounts, we estimate that outlays over that period would total \$123 million.

The bill would authorize the Department of State to provide assistance to foreign countries that are deemed to be at high risk for biological threats. The State Department currently engages with about 30 such countries to address biological threats and already meets many of the bill's requirements. Based on information from the department, CBO estimates that the department would require additional appropriations of about \$14 million a year to meet certain new requirements under the bill and that implementing those requirements would cost \$52 million over the 2011-2015 period. Those new requirements would be to assist countries in securing dangerous pathogens, ensuring the reliability of laboratory personnel, collaborating in bioforensics, adhering to international agreements on biological weapons, and purchasing and maintaining communications equipment and information technology.

The bill also would require the Secretary of Energy to provide assistance to developing countries to help them use more renewable energy and less petroleum fuels. Recently, the Department of Energy has initiated an international program called the Energy Development in Island Nations (EDIN) initiative. That program promotes the use of clean energy in Iceland, New Zealand, and the U.S. Virgin Islands. Based on information from the Department of Energy on the cost of expanding that program to additional countries, CBO estimates that implementing this provision would require additional appropriations of about \$10 million a year and, assuming that the increased efforts would start immediately, we estimate that costs would total \$48 million over the 2011-2015 period.

S. 1649 would authorize the appropriation of \$6 million annually over the 2011-2013 period for the Congressional Research Service and the Government Accountability Office to study and assess how advances in technology might be used to combat terrorism. CBO estimates that implementing this provision would cost \$18 million over the 2011-2014 period.

Finally, S. 1649 would authorize a number of activities intended to enhance the ability of the international community to detect, identify, and contain outbreaks of infectious diseases. Based on information from the Department of Agriculture, CBO estimates that under those initiatives an expansion of activities already carried out by the department with Foreign Animal Disease Funds would cost approximately \$5 million over the next five years.

Revenues

S. 1649 could increase revenues because the legislation would establish civil penalties for violating the regulations established by DHS and HHS. Civil fines are recorded as revenues and deposited in the Treasury. CBO estimates that any additional revenues would not be significant because of the small number of cases likely to be affected.

PAY-AS-YOU-GO CONSIDERATIONS

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. The changes in revenues that are subject to those pay-as-you-go procedures are shown in the following table.

	By Fiscal Year, in Millions of Dollars										2011-	2011-
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2020
NET INCREASE OR DECREASE (-) IN THE DEFICIT												
Statutory Pay-As-You-Go Impact	0	0	0	0	0	0	0	0	0	0	0	0

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

Under current law, laboratories must register with the National Select Agent Registry if they possess, use, or transfer certain materials or toxins. They also must comply with security standards for conducting risk assessments. S. 1649 would impose additional duties on laboratories if they possess, use, or transfer certain materials or toxins that are designated as tier I threats. Those laboratories would be required to comply with new security standards in addition to new standards for conducting background checks, training personnel, and performing vulnerability assessments.

S. 1649 also would require all individuals, laboratories, or other facilities that possess, use, or transfer certain biological agents or toxins to register with the Secretary of DHS.

Finally, the bill would require entities that currently receive, synthesize, or handle DNA from the Variola virus to meet new requirements determined by the Secretary. Those new requirements would determine who is qualified to receive the DNA, establish rules regarding distribution of the DNA, place limits on the amount of DNA provided to laboratories, place limits on the synthesis of the DNA, and enforce any other regulations deemed necessary by the Secretary.

The requirement to comply with the new federal regulations would impose intergovernmental and private-sector mandates as defined in UMRA. The Secretary of HHS, in coordination with the Secretary of DHS, would have broad authority to add or remove materials from the list of tier I threats or registry agents at any time. Because the number of entities that would be affected and the types of limits and security measures required would depend on those future regulations, CBO cannot estimate the cost of the mandates. Consequently, CBO cannot determine whether the costs would exceed the annual thresholds for intergovernmental or private-sector mandates (\$70 million and \$141 million in 2010, respectively, adjusted annually for inflation).

Grant funding authorized by the bill for enhancing security at laboratories would benefit certain state, local, and tribal governments, including public institutions of higher education.

PREVIOUS CBO ESTIMATE

On October 26, 2010, CBO transmitted a cost estimate for H.R. 5498, the WMD Prevention and Preparedness Act of 2010, as ordered reported by the House Committee on Homeland Security on June 23, 2010. We estimated that implementing H.R. 5498 would cost \$455 million over the 2011-2015 period, assuming appropriation of the necessary amounts, and that enacting that legislation also would reduce direct spending by \$23 million over the 2011-2020 period. There are many differences between the bills and the cost estimates reflect those differences.

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