

Fiscal Note & Local Impact Statement

123rd General Assembly of Ohio

BILL: **Sub. S.B. 183**

DATE: **May 10, 2000**

STATUS: **As Enacted – Effective October 5, 2000**

SPONSOR: **Sen. Brady**

LOCAL IMPACT STATEMENT REQUIRED: **Yes**

CONTENTS: **Require public employers to utilize needleless systems and sharps with injury protection devices.**

State Fiscal Highlights

STATE FUND	FY 2001	FY 2002	FUTURE YEARS
General Revenue Fund			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	Increase of approximately \$3,000 - \$5,000 for PERRP activities	Potential increase for PERRP to process variance applications	Potential increase for PERRP to process variance applications
State Operated Facilities			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	Average potential increase of less than \$37,000 (avg. of \$3,120 per facility, though smaller facilities, or those currently using needleless technology, will face lower costs) to maintain sharps injury log plus unknown increase of 20¢ to 29¢ per needle purchased and other sharps devices	Average potential increase of less than \$37,000 (avg. of \$3,120 per facility, though smaller facilities, or those currently using needleless technology, will face lower costs) to maintain sharps injury log plus unknown increase of 20¢ to 29¢ per needle purchased and other sharps devices	Average potential annual increase of less than about \$37,000 statewide (avg. of \$3,120 per facility, though smaller facilities, or those currently using needleless technology, will face lower costs) to maintain sharps injury log, decreasing over time, plus unknown declining increase in needle purchases and other sharps devices plus long-term potential decrease in health-care costs of \$1.7 million.

Note: The state fiscal year is July 1 through June 30. For example, FY 2001 is July 1, 2000 - June 30, 2001.

- The cost estimates included in the bill are based upon the best available information that LBO has been able to find and may not be wholly accurate. Since some facilities are already using safe needle technology, their costs will be lower. Additionally, the size of the facility will affect the potential number of needle stick and smaller facilities will face lower costs related to purchasing new needles and to maintain a log of needle stick injuries.

- According to the Centers for Disease Control and Prevention (CDC), the use of safe needles and other devices that comply with the U.S. OSHA bloodborne pathogen standards could cut accidental needle stick injuries by up to 76 percent. The average cost to test and treat a worker following an accidental stick where an infection does not occur is \$500 per occurrence. Therefore, the use of safe needle technology could result in cost savings of \$550,000 at the state level. The costs to treat a health care worker who is infected from an accidental stick can total up to \$1.0 million over that persons life. Therefore, the use of safe needles could result in savings of \$1.15 million.
- The provisions of this bill apply to public employers that employ public health care workers. This would include employees of, but not limited to, the Ohio Departments of Mental Health, Mental Retardation, and county boards of MR/DD, local health departments, and public hospitals. Public health care worker, under the bill, does not include a person providing dental services.
- The bill requires the Public Employment Risk Reduction Program (PERRP) to adopt rules to implement the provisions of the bill. PERRP will face estimated costs of \$3,000 to publish notices in newspapers about the proposed rules. The bill also allows a facility to apply for a variance of the safe needle provisions under limited conditions. PERRP will face additional costs depending upon the number of entities seeking a variance.
- Information published by the California Occupational Safety and Health Standards Board in February 1999 states that the average annual record keeping associated with maintaining a sharps injury log will be \$30 per hour at two hours per week at the majority of facilities covered in the bill. The average cost per facility at this rate would be \$3,120 per year. However, the actual cost for record keeping would vary depending upon the actual number of needle sticks at the facility. The total amount includes the nine Department of Mental Health Behavioral Health Care Organization campuses, and the three medical school-based state operated hospitals.
- According to information provided by the Ohio Bureau of Employment Services, as of June 1, 1999, there were about 48,000 state and local government employees working in health care related occupations (SIC Major Group 80: Health Services). Of this amount, about 16,700 were state employees.
- According to the U.S. Centers for Disease Control and Prevention (CDC), accidental needles sticks injure between 600,000 and 800,000 health care workers each year nationwide. Assuming this rate holds in Ohio, every year approximately 3,300 to 4,400 state and local public health care workers are accidentally injured.
- The average cost of a standard hypodermic needle is 5¢ to 7¢. The prices of some of the safer devices currently on the market range from 26¢ to 35¢, an increase of about 20¢ to 29¢ over the standard needles. It is believed that as more states require safer devices, the cost to manufacture the devices will decrease as they are produced in greater quantities. LBO is unable to determine how much or how quickly this price decrease would be. Additionally, some of the facilities covered under this bill may already be utilizing safe needles. LBO is unable to determine the magnitude of the facilities already using the safer devices.
- The bill includes a provision allowing for the temporary use of non-safety devices if the drug is contained in an FDA-approved prefilled syringe or other prepackaged administration system. This provision expires five-years after the effective date of the act.
- According Becton Dickinson, the nation's major needle manufacturer, the average costs for a 300-bed health care facility to utilize safe blood collection, hypodermic needles, and IV catheter devices is \$70,000 per year.

- The CDC estimates that the average hospital will have 30 needle stick injuries for every 100 beds per year. The CDC also believes that the use of safety needle devices could cut accidental needle stick injuries by up to 76 percent.
- According to SEIU, each year, at least 1,000 healthcare workers contract a serious infection, like HIV or Hepatitis C, from an accidental needle stick injury. Applying this rate to Ohio's employees, each year about five (5) will contract an infection.
- According to information provided by SEIU, the average cost to treat a healthcare worker that does not contract a serious illness as a result of a needle stick injury is about \$500. For individuals injured with a potentially HIV-contaminated needle where the illness has not been confirmed, the initial cost for testing and treatment with prophylactic drugs is \$2,200 - \$3,800 per occurrence. This figure does not include costs related to time missed from work, hiring substitute labor, or the psychological impact of a needle stick on the worker.
- The American Hospital Association estimates that the costs to treat a health care worker that contracts a bloodborne pathogen disease can total up to \$1 million. This figure includes treatment, wage replacement, burial, and spousal benefits.
- The increased costs and long-term savings will not be borne entirely by the state or local facility in the cases where an employee possesses health insurance or some other form of third-party payer. In those cases, the third-party payer and the local health care facility will share the costs and savings.

Local Fiscal Highlights

LOCAL GOVERNMENT	FY 2000	FY 2001	FUTURE YEARS
Counties and cities			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	Average potential increase of less than \$330,000 (avg. of \$3,120 per facility, though smaller facilities, or those currently using needleless technology, will face lower costs) to maintain sharps injury log plus unknown increase of 20¢ to 29¢ per needle purchased and other sharps devices	Average potential increase of less than \$330,000 (avg. of \$3,120 per facility, though smaller facilities, or those currently using needleless technology, will face lower costs) to maintain sharps injury log plus unknown increase of 20¢ to 29¢ per needle purchased and other sharps devices	Average potential annual statewide increase of less than \$330,000 (avg. of \$3,120 per facility, though smaller facilities, or those currently using needleless technology, will face lower costs) to maintain sharps injury log, decreasing over time, plus unknown declining increase in needle purchases and other sharps devices plus long-term potential decrease in health-care costs of up to \$3.335 million.

Note: For most local governments, the fiscal year is the calendar year. The school district fiscal year is July 1 through June 30.

- The cost estimates included in the bill are based upon the best available information that LBO has been able to find and may not be wholly accurate. Since some facilities are already using safe needle technology, their costs will be lower. Additionally, the size of the facility will affect the potential number of needle stick and smaller facilities will

face lower costs related to purchasing new needles or other devices that comply with U.S. OSHA bloodborne pathogen standards and to maintain a log of needle stick injuries.

- According to the Centers for Disease Control and Prevention (CDC), the use of safe needles could cut accidental needle stick injuries by up to 76 percent. The average cost to test and treat a worker following an accidental stick where an infection does not occur is \$500 per occurrence. Therefore, the use of safe needle technology could result in cost savings of \$1.065 million at the local government level. The costs to treat a health care worker who is infected from an accidental stick can total up to \$1.0 million over that persons life. Therefore, the use of safe needles could result in savings of \$2.27 million.
- Information published by the California Occupational Safety and Health Standards Board in February 1999 states that the average annual record keeping associated with maintaining a sharps injury log will be \$30 per hour at two hours per week at the majority of facilities covered in the bill. The average cost per facility at this rate would be \$3,120 per year. However, the actual cost for record keeping would vary depending upon the actual number of needle sticks at the facility. Smaller hospitals and local health departments, and those already using safe needle technology, would have lower, if any, costs to maintain the log since the number of sticks at these facilities are potentially low. The total amount includes the 19 hospitals operated by local governments and at least 88 health clinics operated by local departments of health.
- The provisions of this bill apply to public employers that employ public health care workers. This would include employees of county boards of MR/DD, local health departments, and public hospitals. According to information provided by OBES, as of June 1, 1999, of the 48,000 state and local government employees working in health care related occupations, about 31,000 were local government employees.
- The CDC estimates that the average hospital will have 30 needle-stick injuries for every 100 beds per year. As of October 1999, there were a total of 2,734 local public hospital beds in Ohio. If the national average holds in Ohio, each year there are approximately 800 needle stick injuries in these facilities.
- The increased costs and long-term savings will not be borne entirely by the local facility in the cases where an employee possesses health insurance or some other form of third-party payer. In those cases, the third-party payer and the local health care facility will share the costs and savings.

Detailed Fiscal Analysis

State Hospitals

The following table lists hospitals operated by the state. It includes facilities operated by the Department of Mental Health and the hospitals operated by the Medical College of Ohio and The Ohio State University. The [CDC estimates](#) that the average hospital will have 30 needle-stick injuries for every 100 beds per year.

Facility (No. of Employees on 9/30/98)	No. of Beds	City (County)	Estimated # of Accidental Sticks Per Year
DMH Hospitals (2,938.4 as of 7/1999 system wide)			
<i>Appalachian Psychiatric Healthcare System</i>			
Cambridge Psychiatric Hospital	N/A	Cambridge (Guernsey)	N/A
Southeast Psychiatric Hospital	N/A	Athens (Athens)	N/A
<i>Twin Valley Psychiatric System</i>			
Columbus Campus	N/A	Columbus (Franklin)	N/A
Dayton Campus	N/A	Dayton (Montgomery)	N/A
Massillon Psychiatric Center	N/A	Massillon (Stark)	N/A
Pauline Warfield Lewis Center	N/A	Cincinnati (Hamilton)	N/A
<i>Northcoast Behavioral Healthcare System</i>			
NBHS Cleveland Campus	N/A	Cleveland (Cuyahoga)	N/A
NBHS Northfield Campus	N/A	Northfield (Summit)	N/A
NBHS Toledo Campus	N/A	Toledo (Lucas)	N/A
State Hospitals			
The Ohio State University Hospitals (3,756)	555	Columbus (Franklin)	166.5
OSU East (557)	145	Columbus (Franklin)	43.5
Medical College of Ohio Hospital (1,674)	238	Toledo (Lucas)	71.4

Local Public Hospitals

The following table lists hospitals operated by local political subdivisions. It does not include state or federal facilities.

Facility (No. of Employees on 9/30/98)	No. of Beds*	City (County)	Estimated # of Accidental Sticks Per Year
County Hospitals			
MetroHealth Medical Center (5,122)	871	Cleveland (Cuyahoga)	261.3
Brown County General Hospital (245)	127	Georgetown (Brown)	38.1
River Valley Health System (699)	245	Ironton (Lawrence)	73.5
Hocking Valley Community Hospital (233)	104	Logan (Hocking)	31.2
Memorial Hospital of Union County (509)	77	Marysville (Union)	23.1
Joel Pomerene Memorial Hospital (189)	69	Millersburg (Holmes)	20.7
Morrow County Hospital (192)	103	Mt. Gilead (Morrow)	30.9
Paulding County Hospital (143)	66	Paulding (Paulding)	19.8
Robinson Memorial Hospital (1,078)	201	Ravenna (Portage)	60.3

Fayette County Memorial Hospital (216)	58	Washington C.H. (Fayette)	17.4
Adams County Hospital (300)	64	W. Union (Adams)	19.2
Clinton Memorial Hospital (481)	93	Wilmington (Clinton)	27.9
Edwin Shaw Hospital (421)	188	Akron (Summit)	56.4
City Hospitals			
Wooster Community Hospital (516)	130	Wooster (Wayne)	39.0
City-County Hospitals			
Berger Hospital (315)	60	Circleville (Pickaway)	18.0
Hospital District or Authority			
Community Memorial Hospital (108)	35	Hicksville (Defiance)	10.5
Highland District Hospital (285)	65	Hillsboro (Highland)	19.5
Joint Township District Memorial Hospital (444)	141	St. Marys (Auglaize)	42.3
Wyandot Memorial Hospital (137)	37	Upper Sandusky (Wyandot)	11.1
TOTAL	2,734		820.2

*As of September 28, 1999

As noted above, the average cost to treat a needle stick injury where the worker does not contract a bloodborne pathogen is \$500. That means, for example, that every year MetroHealth Medical Center spends, on average, \$130,650 to treat health care workers that are accidentally stuck with a needle or other sharps device. Statewide at all local public hospitals, the cost to treat accidentally stuck health care workers totals about \$410,000.

Sharps Injury Logs

The bill requires public employers to maintain “accurate records of public health care worker sharps injuries and incidents of exposure to blood or other material potentially containing blood borne pathogens.” According to information obtained from the [California Occupational Safety and Health Standards Board](#), the average annual record keeping costs associated with maintaining a sharps injury log will be \$30 per hour at two hours per week for the majority of facilities covered under this bill. The average cost per facility at this rate would be \$3,120 per year. LBO is unsure of the similarity of the hourly rate in California as compared to the wage rate for a similar position in Ohio.

Under current laws and rules in Ohio, employers are required to submit “a log and summary of all recordable occupational injuries and illnesses” ([OAC 4167-6-02 \(A\)](#)). Under the rules, the log and summary shall be [OSHA form no. 200](#). An examination of the [California Code of Regulations, Title 8, Chapter 7, Subchapter 1, Article 2, section 14301](#), indicates that “... each State and local public agency ... shall: (1) Maintain ... a [log of all recordable occupational injuries](#) and illnesses for that establishment.”

[Section 5193 of Title 8 of the California Code of Regulations](#) governs the California needle stick safety program, including the [sharps injury log](#). California established a separate form to record sharps injuries that include the information required by [ORC 4167.28 \(A\)\(4\)](#), as contained in the bill. The [California Division of Occupational Safety and Health](#) estimated the additional cost per facility to maintain a sharps injury log. As was the case in Ohio, employers in California were already required to report sharps injuries prior to the establishment of the sharps injury regulations. Therefore, LBO believes that public health employers in Ohio will also face additional costs related to maintaining sharps injury logs, even though they may currently be reporting this information in another manner.

However, the magnitude of the costs will depend upon the size of the facility. At smaller hospitals and local health departments, and those already utilizing the safe needle technology, the number of potential needle sticks will probably fall below the average. Therefore, the cost estimate of two hours per week to maintain the log most likely exceeds the potential number of hours that these smaller facilities would require. Therefore, LBO estimates that these facilities will have costs far below the estimated average of \$3,120 and that the statewide estimate of \$330,000 per year most likely exceeds the actual annual statewide costs incurred in a given year. Additionally, as the use of safe needles increase, the number of accidental sticks will decrease, which will decrease the labor costs incurred in maintaining the needle stick log over the long run.

Device Costs

LBO has been unable to determine the exact number of needles and other sharps devices that are used in facilities covered by this bill. However, the costs involved in conversion to safety needle devices involve more than just determining the total number of needles purchased. These devices include blood collection units, lancets, IV line ports, IV catheters, and needle boxes. At The Ohio State University Hospitals, which shifted to safety devices in November 1995, the number of needles purchased totals only about one-half of the devices that would be used in circumstances governed by this bill. According to the Service Employees International Union (SEIU), it costs a 300-bed facility an additional \$70,000 per year to utilize safe blood collection devices, hypodermic needles, and IV catheter devices. However, as more facilities move towards safer devices, the cost to the manufacturer to mass produce the devices will decrease, which should, in turn, lower the cost to purchase the safety devices. In addition to needleless systems, the bill allows the use of devices that comply with the [U.S. OSHA bloodborne pathogen standards](#).

The average cost to purchase a standard hypodermic needle is 5¢ to 7¢. The prices of some of the safe devices currently on the market range from 26¢ to 35¢, an increase of about 20¢ to 29¢ over the standard needles. The following table shows how needle-purchasing costs would increase at various quantities. It is important to note, however, that the costs listed in the table represent only a portion of the total cost increase that a facility would face as a result of safe needle procurement. Additionally, some of the facilities included in the table may already use safety needles. LBO is unable to determine which facilities currently use safe devices.

Quantity of Needles Purchased	Additional Cost with 20¢ Price Increase	Additional Cost with 29¢ Price Increase	Additional Cost with 50¢ Price Increase
1,000	\$200	\$290	\$500
10,000	\$2,000	\$2,900	\$5,000
50,000	\$10,000	\$14,500	\$25,000
100,000	\$20,000	\$29,000	\$50,000
500,000	\$100,000	\$145,000	\$250,000
1,000,000	\$200,000	\$290,000	\$500,000

The bill also includes a provision governing the use of prefilled syringes or other prepackaged administration systems that are FDA approved. Until five years after the effective date of the bill,

employers will allow these devices to be used, even if they are not produced with engineered sharps injury protection.

Long-term Savings

Non-infectious Accidental Injuries

The State of Ohio has approximately 48,000 state and local government employees working in health care, as defined by [SIC Major Group 80](#). Nationally, each year approximately 6.8 percent to 9.1 percent of the 8.8 million health care workers will suffer from an accidental needle stick injury. Applying this rate to Ohio's public health care workers, annually there are 3,300 to 4,400 needle stick injuries. The average cost to test and treat a worker following an injury where infection does not occur is \$500 per occurrence. That means that every year, about \$1.65 million to \$2.2 million is spent treating these accidental injuries. This figure does not include prophylaxis treatment, which could increase treatment costs by up to \$3,800.

Broken down into state versus local government employees, there are approximately 1,100 – 1,500 state employees annually and 2,100 – 2,800 local government employees annually with needle stick injuries. Current estimated maximum costs, using the \$500 per occurrence estimate are \$750,000 at the state level and \$1.4 million at the local level each year.

According to the Centers for Disease Control and Prevention (CDC), the use of safe needles could cut accidental needle stick injuries by up to 76 percent. For state and local government health care employees in Ohio, the annual injuries totals could be lowered by 2,500 to 3,300 per year to 800 to 1,000 injuries per year. Therefore, the costs savings as a result of safer devices could total between \$1.25 million and \$1.67 million.

For state employees only, the number of accidental needle stick injuries could be reduced, using the 76 percent estimate, to about 260 – 400 cases. This would provide potential estimated savings of up to \$550,000. Applying the estimated reduction rates to local government employees, safe needles could reduce accidental needle sticks to 500 – 670 per year. Potential estimated savings at the local level would be \$1.065 million.

Infectious Accidental Injuries

Information produced by the Service Employees International Union (SEIU) reports that of the 8.8 million health care workers nationwide, each year 0.01 percent will contract a bloodborne pathogen disease (i.e.: HIV, Hepatitis B, Hepatitis C) from an accidental needle stick. Applied to the 48,000-member cohort covered by this bill, each year 5 individuals in Ohio will contract a disease. Split by state versus local employees, the numbers that will contract a disease is 1.6 state employees and 3.1 local government employees. The American Hospital Association estimates that the costs to treat a health care worker that contracts a bloodborne pathogen disease can total up to \$1 million over that persons

life. This figure includes treatment, follow-up, lost-time wages, and disability payments. The costs for drugs to treat HIV or Hepatitis C can run as much as \$20,000 - \$30,000 per year, according to SEIU figures.

Assuming that the use of safer needles can drop the needle stick injury rate up to 76 percent, the ratio of individuals that will contract an infection following an injury drops to 0.0027 percent. In Ohio, the number of infected health care workers covered under this bill could shrink to 1.29 individuals, or 0.45 state employees and 0.83 local employees. The potential savings in health care costs as a result of safer needles, therefore, could total up to \$3.71 million statewide, or \$1.15 million at the state level and \$2.27 million at the local level.

Third-party Payers

The costs and savings included in this analysis will not be wholly borne by the public institution or agency in cases where there are third-party payers, like health insuring corporations. In these cases, the facility and the third-party payer will share the costs and savings. LBO is unable to determine the breakdown of costs and savings involving cases with third-party payers.

Public Employment Risk Reduction Program (PERRP)

The purpose of the Public Employment Risk Reduction Program is to ensure that the public employees in Ohio are provided with a safe and healthful working environment. The bill requires the PERRP to adopt by rule procedures governing the activities required under this bill. This includes prescribing and updating control procedures to prevent sharps injuries, and compiling a list of needleless systems to assist employers in complying with the bill.

Under current law, any public employer may seek a variance from one of Ohio employment risk reduction standards. This section is amended to include the provisions related to safe needles. S.B. 183 states that an employer may seek a variance from a safe needle provision if no devices are available in the marketplace or if the product evaluation committee determines that the use of a safety device will harm patient or employee safety. According to OBES, since the law was enacted earlier this decade, no variance has ever been granted.

The fiscal note for the As Introduced version of S.B. 183 indicated that LBO was unclear if there was a mechanism for revoking a variance. After further research, it appears that [section 4167-7-01 \(C\)\(6\)\(a-b\) of the Administrative Code](#) deals with revocation of variances. OBES will face additional costs to publish proposed rules and from entities seeking variances from the standards established in accordance with this bill.

Subcommittee for Evaluation of Products

Sub. S.B. 183 requires the Public Employment Risk Reduction Advisory Committee (PERRAC) to appoint a subcommittee to evaluate products intended to protect public health care workers from blood borne pathogens. The subcommittee is charged with the task of reporting back to PERRAC with recommendations on adoption, modification, or rescission of rules pursuant to ORC 4167.07. The

subcommittee shall also establish a list of needless systems that will be made available to all public employers in order to comply with the provisions of the bill.

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