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An Audit Report on

# **Campus Safety and Security Emergency Management Plans at Texas Health-related Institutions**

August 2009  
Report No. 09-050



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## Overall Conclusion

Texas's nine public health-related institutions (institutions) have controls in place to monitor their highest risk research laboratories, which are laboratories that use animals, radioactive materials, or select agents and toxins with the potential to pose a severe threat to human, animal, or plant health. However, the institutions should improve their monitoring of their lower risk research laboratories by ensuring that there are policies and procedures in place for overseeing research laboratories that use hazardous chemicals and/or biological materials.

In October 2008, the State Auditor's Office issued *An Audit Report on Campus Safety and Security Emergency Management Plans at Texas Public Universities* (State Auditor's Office Report No. 09-009) that covered the 35 Texas public universities but did not include the health-related institutions. In this report, auditors reviewed emergency management plans, annual crime reports, and research laboratory policies and procedures for the nine institutions.

All nine institutions have designed and implemented campus safety and security emergency management plans. These plans should include ongoing risk assessment, monitoring, and testing of the plans to ensure an appropriate response in the event of an actual emergency. The institutions could improve their emergency management plans by ensuring they are up to date, approved by institution management, and comprehensive.

### Emergency Management

Emergency management is the continuous process of mitigating the effects of and preparing for emergencies and then responding and recovering from emergencies once they occur.

An emergency management plan outlines concepts of operations for coordinated efforts by all responders to perform emergency functions.

### Texas Public Health-related Institutions

The nine Texas public health-related institutions (institutions) are:

- Texas A&M Health Science Center.
- Texas Tech University Health Sciences Center.
- The University of Texas Health Science Center at Houston.
- The University of Texas Health Science Center at San Antonio.
- The University of Texas Health Science Center at Tyler.
- The University of Texas M.D. Anderson Cancer Center.
- The University of Texas Medical Branch at Galveston.
- The University of Texas Southwestern Medical Center at Dallas.
- University of North Texas Health Science Center at Fort Worth.

For the fall 2008 semester, the institutions had 17,692 enrolled students and 58,177 full-time employees.

Sources: *Local Emergency Management Planning Guide*, Governor's Division of Emergency Management; the Higher Education Coordinating Board; and the State Auditor's Office Full-time Equivalent State Employee System.

This audit was conducted in accordance with Texas Government Code, Section 321.0132.

For more information regarding this report, please contact Sandra Vice, Assistant State Auditor, or John Keel, State Auditor, at (512) 936-9500.

Five of eight institutions' annual crime reports complied with all reporting requirements of the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act). Three of the eight institutions' annual crime reports addressed the missing elements after auditors brought the requirements to the institutions' attention. The ninth institution is not required to report annual crime statistics under the Clery Act because it does not receive federal student financial assistance, and it did not prepare an annual report under the Clery Act.

## ***Key Points***

**Responsibility for research laboratory oversight is shared by federal, state, and institution representatives.**

The 9 institutions self-reported that the majority (82.7 percent) of their research laboratories use hazardous chemicals and/or biological materials. There are federal and state guidelines for conducting research and working with hazardous chemicals and biological materials. However, with the exception of biological materials that are considered select agents, there are not specific federal or state guidelines for monitoring these types of research laboratories. Such monitoring could include conducting inspections or inventorying materials. As a result, the individual health-related institutions are primarily responsible for monitoring the safety and security of their research laboratories. The institutions do this through oversight committees, which review and approve research protocols; institutional compliance offices, which promote compliance with applicable requirements; and safety or environmental health and safety offices, which provide services that promote safety.

**Institutions should improve their emergency procedures for lower risk research laboratories by developing and implementing detailed procedures to secure and protect research laboratories and their equipment, chemicals, and materials during an emergency.**

All nine institutions have general emergency procedures for employees and students to follow during an emergency for their personal safety. Also, eight of the nine institutions have emergency procedures for the evacuation of research animals. Eight institutions reported they have established written emergency procedures for securely storing items such as chemicals, viruses, and equipment during emergencies (for example, hurricanes, tornadoes, and floods). Auditors reviewed the nine institutions' written emergency procedures. With the exception of procedures for Biosafety Level 3 and vivarium research laboratories, the institutions' procedures need additional details on how to secure and protect the research laboratories, equipment, research materials, or the various chemicals or biological materials in research laboratories in the event of an emergency. Including additional information would minimize the risk that valuable equipment

and research materials are lost during an emergency. (See text box on page 1 in the Detailed Results section of this report for definitions.)

**Institutions could improve their monitoring of research laboratories that use hazardous chemicals and/or biological materials.**

All four institutions auditors visited had detailed general research laboratory safety manuals and guides. They also require and track research laboratory safety training for all employees and students. The four institutions could strengthen their monitoring of research laboratories that use hazardous chemicals and/or biological materials by implementing purchasing controls, such as obtaining pre-approvals or tracking purchases, and conducting an annual inventory.

**Key elements and implementation statuses of emergency management plans vary among institutions.**

The nine institutions have developed emergency management plans that differ in terms of key elements addressed. Auditors evaluated the institutions' emergency management plans using 11 broad categories of state planning standards most applicable to higher education institutions. The majority of the plans reviewed contained the recommended elements for four categories: **concept of operations**, which is the general approach to the emergency situation; **organization and assignment of responsibilities**; **direction and control**, which identifies those responsible for directing the emergency response and recovery and describes the available emergency facilities; and **readiness level**, a classification system to assess current threats facing the institutions.

Institutions could improve their emergency planning activities in four categories: **plan approval and implementation** (see next key point); **identification of situations and assumptions**, which assesses risks and hazards; **administration and support**, which establishes requirements for reports and emergency-related record-keeping; and **development and maintenance** of the emergency management plan. Auditors did not identify significant issues related to the other three categories. (See Appendix 3 for a full listing of the categories and results.)

**The institutions are at various stages of implementing their emergency management plans.**

While all nine institutions have completed emergency management plans, six of these plans have been approved by institutional executive management. One of the six approved plans is a template to be completed by each of the institution's five campuses. In the event of an actual emergency, an approved emergency management plan that includes a standardized set of elements would facilitate multiple entities working together to coordinate a response.

## **Institutions substantially complied with the reporting requirements of the federal Clery Act.**

The Clery Act requires institutions of higher education that receive student financial assistance to disclose campus crime statistics and security information to current and prospective students and employees. The Clery Act also requires higher education institutions to publish annual crime reports that describe their campus security policies and contain statistics regarding crime that occurred on and around campus. The institutions self-report this information to the U.S. Department of Education. There is no central reporting point at the state level to receive, analyze, and monitor this information. For the crime reports published in calendar year 2008, five of eight institutions included all required information in their annual crime reports (see Table 8 on page 26 in the Detailed Results section for more information). The ninth institution is not required to report annual crime statistics under the Clery Act because it does not receive federal student financial assistance, and it did not prepare an annual report under the Clery Act.

## ***Selected Recommendations***

The Texas health-related institutions should:

- Consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.
- Consider implementing purchasing controls, such as obtaining pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.
- Develop plans to ensure they comply with House Bill 1831 (Relating to Disaster Preparedness and Emergency Management) requirements once that bill becomes effective on September 1, 2009. The plans should include persons responsible and time frames for compliance with requirements.

Texas A&M Health Science Center, the University of Texas Southwestern Medical Center at Dallas, and the University of North Texas Health Science Center should ensure their annual crime reports are in compliance with all Clery Act federal regulations.

The Legislature should consider requiring the State's higher education institutions, including the health-related institutions, to submit their Clery Act annual security reports to the Department of Public Safety.

See Chapter 4, page 29 for a list of all recommendations.

## ***Summary of Management's Response***

The management at all nine institutions agree with the recommendations in this report. The institutions' management responses are presented in Appendices 7 to 15.

## ***Summary of Objective, Scope, and Methodology***

The objective of the audit was to determine whether the State's health-related institutions have designed and implemented campus safety and security emergency management plans that include ongoing risk assessment, monitoring, and testing of the plan to ensure an appropriate response in the event of an actual emergency.

The scope of the audit covered the period from September 1, 2007, through March 31, 2009.

The audit methodology included reviewing emergency management plans, surveying institution personnel about their emergency management practices, reviewing annual crime reports, surveying institution personnel about their research laboratories, and conducting site visits at four institutions regarding the safety and monitoring of their research laboratories. Auditors also conducted a survey of nine institutions to gather information on emergency preparedness, mental health and behavioral concerns, campus law enforcement, mitigation activities, and research laboratory safety.

Auditors communicated other, less significant issues to the institutions' management separately in writing.

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# Detailed Results

Chapter 1

## ***While All Nine Health-related Institutions Have General Emergency Procedures in Place, They Could Improve Their Monitoring of Research Laboratories***

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The 9 Texas public health-related institutions (institutions) self-reported that the majority (82.7 percent) of their research laboratories use hazardous

chemicals and/or biological materials.<sup>1</sup> There are federal and state criteria for conducting research and working with hazardous chemicals and biological materials. However, with the exception of biological materials that are considered select agents<sup>2</sup> (see text box for definitions), there are not specific federal or state guidelines for monitoring these types of research laboratories, such as guidelines regarding the frequency for conducting inspections or inventorying materials. As a result, the individual institutions are primarily responsible for monitoring the safety and security of their research laboratories. The institutions monitor the safety and security of their research laboratories through oversight committees, which review and approve research protocols; institutional compliance offices, which promote compliance with applicable requirements; and safety or environmental health and safety offices, which provide services that promote safety.

All nine institutions have controls in place to monitor their highest risk research laboratories, which are laboratories that use animals, radioactive materials, or select agents. However, the institutions should improve

their monitoring of the lower risk research laboratories by ensuring there are policies and procedures in place for overseeing research laboratories that use hazardous chemicals and/or biological materials.

With the exception of Biosafety Level 3 and vivarium research laboratories, none of the nine institutions' emergency procedures contained sufficient details on how laboratory personnel should secure and protect the research

### Definitions

**Biological Material** - Any substance derived from living organisms or their products used to treat or prevent disease.

**Biosafety Levels 1 - 4:**

- **Level 1** - Agents and toxins that do not consistently cause disease in healthy adult humans.
- **Level 2** - Agents and toxins that are spread through puncture, absorption, mucous membranes, or ingestion of infectious materials.
- **Level 3** - Agents and toxins that have a potential for aerosol transmission and may cause a serious, potentially lethal infection.
- **Level 4** - Agents and toxins that pose a high individual risk of life-threatening disease for which there is no available vaccine or therapy.

**Select Agents** - Agents or toxins with the potential to pose a severe threat to human, animal, or plant health. These are regulated and controlled by the federal Centers for Disease Control and Prevention.

**Hazardous Chemical** - A chemical for which there is significant evidence that acute or chronic health effects may occur in exposed individuals.

**Vivarium** - A laboratory in which research animals are housed.

Sources: *Biosafety in Microbiological and Biomedical Laboratories*, 5th edition, U.S. Department of Health and Human Services, 2007; National Select Agent Registry Program Web site; Title 29, Code of Federal Regulations, Section 1910.1450; and [www.dictionary.com](http://www.dictionary.com).

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<sup>1</sup> See Table 13 in Appendix 2 on page 36.

<sup>2</sup> All references to biological materials in this chapter exclude select agents.

laboratories, equipment, research, or the various chemicals or biological materials during an emergency (for example, hurricanes, tornadoes, and floods). All 9 institutions have general emergency procedures for employees and students to follow during an emergency for their personal safety, and 8 (88.9 percent) of the 9 institutions have emergency procedures for the evacuation of research animals. However, a lack of specific procedures for securing and protecting research laboratories, chemicals, and research materials in the event of an emergency increases the risk that valuable equipment or materials may be lost during an emergency.

Auditors conducted a survey of the nine institutions about research laboratory safety and conducted site visits at four institutions. All four institutions visited (1) have general research laboratory safety manuals and guides for the daily operations of research laboratories and (2) require and track research laboratory safety training for all employees and students. However, all four institutions could strengthen their monitoring of research laboratories that use hazardous chemicals and/or biological materials by implementing purchasing controls, such as obtaining pre-approvals or tracking purchases, and conducting an annual inventory.

Chapter 1-A

### Responsibility for Research Laboratory Oversight Is Shared by Federal, State, and Institution Representatives

#### Research Laboratory Oversight by Type of Research Activity

##### Animals

- Association for Assessment and Accreditation of Laboratory Animal Care.
- U.S. Department of Agriculture’s Animal and Plant Health Inspection Service.
- National Institutes of Health - Office of Laboratory Animal Welfare.

##### Human Subjects

- National Institutes of Health - Office of Human Subjects Research.

##### Radioactive Materials

- National Institutes of Health - Division of Radiation Safety.
- Texas Department of State Health Services - Bureau of Radiation Control.

##### Select Agents

- Centers for Disease Control and Prevention - National Select Agent Registry.

There are numerous federal and state agencies and associations that provide oversight of research laboratories using animals, human subjects, radioactive materials, or select agents (see text box for list of oversight agencies and associations). Federal and state guidance also exists for how research laboratories should safely handle hazardous chemicals and biological materials. However, the federal and state agencies generally do not provide specific guidance on monitoring these types of research laboratories, such as guidance regarding conducting inspections or inventorying materials. (The exception is those biological materials identified as select agents.) According to the information self-reported by the 9 Texas institutions, the majority (82.7 percent) of their research laboratories work with hazardous chemicals and/or biological materials.

Due to limited federal and state monitoring requirements for hazardous chemicals and non-select agent biological materials, each institution is primarily responsible for monitoring the safety and security of its research laboratories. The type and frequency of monitoring of research laboratories

vary among the nine institutions. (See Chapters 1-B and 1-C for more information on the type of monitoring performed.) Auditors visited four of the nine institutions and reviewed each institution's policies and procedures related to the monitoring of the safety and security of research laboratories. The institutions that auditors visited were:

- Texas A&M Health Science Center (Texas A&M).
- Texas Tech University Health Sciences Center (Texas Tech).
- University of North Texas Health Science Center at Fort Worth (North Texas).
- The University of Texas Southwestern Medical Center at Dallas (Southwestern).

The four institutions auditors visited have oversight committees, institutional compliance offices, and environmental health and safety offices that are responsible for monitoring research laboratories.

#### Oversight Committees

Federal and state regulations require institutions to have oversight committees if they conduct research using animals, human subjects, radioactive materials,

or biological materials (see text box for definitions of the types of oversight committees). The committees' membership is prescribed by federal and state regulations, which set the minimum number of members, as well as the requirements for membership, such as (1) one member has specific education and experience in the subject matter that the committee oversees, (2) one member is unaffiliated with the institution, and (3) one member's education and experience are in an area other than science. For example, institutional animal care and use committees must have at least five members, including (1) one member who is a veterinarian with training or experience in laboratory animal science and medicine, (2) one member who is a practicing scientist experienced in research with animals, (3) one member whose primary concerns are in a nonscientific area (for example, an ethicist, lawyer, or member of the clergy), and (4) one member who is not affiliated with the institution.

<p><b>Research Oversight Committees</b></p> <p><b>Institutional Review Board</b> - Reviews and approves all research involving human subjects.</p> <p><b>Institutional Biosafety or Biohazards Committee</b> - Reviews and approves all research involving biological materials, including recombinant DNA and select agents.</p> <p><b>Institutional Animal Care and Use Committee</b> - Reviews and approves all research involving animals.</p> <p><b>Radiation Safety Committee</b> - Reviews and approves all research involving radioactive materials.</p> <p>Sources: National Institutes of Health and Title 25, Texas Administrative Code, Chapter 289 (Radiation Control).</p>
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The oversight committees are responsible for monitoring their corresponding areas. Specifically, the committees review and approve:

- All research protocols (the plan for carrying out a scientific study), including applications, amendments, and status reports.

- Policies and procedures related to conducting research, completing and submitting research protocols, and the general operations of the oversight committees.
- Reports submitted to federal and state oversight agencies.

All four institutions auditors visited had the required oversight committees. While each type of oversight committee has the same responsibilities, committees at each institution have discretion over how often they meet. At the four institutions visited, oversight committee meetings varied from bi-weekly or quarterly meetings to committees that met only as needed. For example, the Radiation Safety Committee at North Texas meets quarterly, while the same committee at Texas Tech meets monthly.

#### Institutional Compliance Offices

Three of the four institutions auditors visited had institutional compliance offices, which are not required by federal or state regulations. These compliance offices work with other institutional departments, such as research or safety, to promote compliance with the institution's policies, as well as with federal, state, and local requirements. The makeup and members of the institutional compliance offices varies at the three institutions. North Texas's compliance office consists of the following seven divisions: clinical, research, human resources, safety, student affairs/education, finance and administration, and information resources. Southwestern's compliance office has four components: privacy, billing, institutional compliance, and corporate compliance. Texas Tech's compliance office currently consists of just one compliance officer.

The compliance offices' involvement in the monitoring of the safety and security of research laboratories varies among the institutions. North Texas's compliance office includes the institution's Safety Office; therefore, it is involved in the day-to-day monitoring of the research laboratories. At Southwestern, the compliance office is separate from the institution's Safety Office and does not have constant involvement in the monitoring of research laboratories. Southwestern's compliance office assists in the monitoring of research laboratories by incorporating research laboratory safety into its annual campus risk assessment. Texas Tech's compliance office was not involved in monitoring research laboratory safety during fieldwork for this audit, but it was in the process of organizing a research committee whose primary responsibility would be monitoring research laboratory safety.

#### Environmental Health and Safety Offices

All four institutions auditors visited had an environmental health and safety office or a safety office, which is responsible for providing safety training, tracking incidents, approving purchases of radioactive materials, ensuring proper disposal of hazardous wastes, and inspecting research laboratories.

(See Chapter 1-C for more information on the monitoring performed by safety offices.) The makeup of these offices varies among the four institutions. Specifically:

- The Safety Office at North Texas consists of the safety officer (who is also the radiation safety officer) and an assistant safety officer (who is also the chemical hygiene officer).
- Southwestern's Environmental Health and Safety Office has six divisions: administration, x-ray safety, radioactive materials safety, fire protection safety, biological and chemical safety, and laser safety.
- The Safety Services Office at Texas Tech consists of six divisions: fire and life safety, occupational safety, environmental safety, training safety, radiation safety, and laboratory safety.
- The Environmental Health and Safety Office at Texas A&M consists of the chief safety officer. However, each of Texas A&M's five campuses has its own safety office.

Chapter 1-B

## Research Laboratory Safety Survey Responses

Auditors conducted a survey of all nine institutions to gather information on research laboratory safety, emergency preparedness, mental health and behavioral concerns, campus law enforcement, and mitigation activities. The following information on research laboratory safety was self-reported by the institutions in their responses to the survey (see Chapter 2-B for selected information from the institutions' survey responses for the other four survey sections and Appendix 4 for all survey results).

- **Emergency Procedures.** All 9 (100.0 percent) institutions have general emergency procedures for employees and students to follow during an emergency for their personal safety. Also, 8 (88.9 percent) of the 9 institutions have emergency procedures for the evacuation of research animals. Seven (77.8 percent) of the 9 institutions reported they have animal research laboratories.

Eight (88.9 percent) institutions reported they have established written emergency procedures for securely storing items such as chemicals, viruses, and equipment during emergencies (for example, hurricanes, tornadoes, and floods). Auditors reviewed the nine institutions' written emergency procedures and determined that—with the exception of procedures for Biosafety Level 3 and vivarium research laboratories—the procedures need additional details on how to secure and protect the research laboratories, equipment, research, or the various chemicals or biological materials in the research laboratories in the event of an

emergency. (See text box on page 1 for definitions of research laboratories.)

Written procedures can provide details on how to secure and protect the research laboratories, chemicals, and research materials in the event of an emergency to minimize the risk that valuable equipment and research materials are lost during an emergency.

- **Incident Reporting.** All 9 (100.0 percent) institutions have written policies and procedures for reporting incidents that may occur in the research laboratories (for example, chemical spills, infections, and needle pricks). Eight (88.9 percent) of 9 institutions' procedures had details for how to report an incident. Detailed procedures are important to ensure the health and well-being of the laboratory workers and to ensure an effective and efficient response to the incident. For example, a research laboratory worker who does not know the procedures for reporting an injury may report it to an inappropriate party, which may cause a delay in an appropriate response.
- **Physical Security Features.** All 9 (100.0 percent) institutions reported they have implemented a variety of physical security features at their research laboratories (see Table 1).

Table 1

Responses from Nine Health-related Institutions to State Auditor's Office Survey about Research Laboratory Safety		
5. Which of the physical security features listed below have been implemented at the laboratories on campus? (Check all that apply.)		
Response	Number of Institutions	Percent of Institutions
Emergency Call Boxes	4	44.4%
Security Cameras	8	88.9%
Fire Alarms	9	100.0%
Card Access on Doors	9	100.0%
Timed Door Locks	5	55.6%
Sprinkler Systems	8	88.9%
Safety Escort Service	7	77.8%
Panic Button	5	55.6%
Security Guards	7	77.8%
Visitor Screening	7	77.8%

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey. (See Appendix 4 for entire survey results.)

- **Inspections.** Seven (77.8 percent) of the 9 institutions reported they have written policies and procedures for routinely inspecting and maintaining the infrastructure and equipment of their research laboratories. Six (66.7 percent) institutions reported they conduct inspections more than once per year. Routinely inspecting research laboratories can serve as reminders to laboratory managers and workers about the importance of following operating procedures intended to protect everyone's health and safety.
- **Backup Power System.** All 9 (100.0 percent) institutions reported their research laboratories have backup power systems. All nine institutions also reported they have written policies and procedures related to backup power systems and they test the backup power systems at least once per year.
- **Research Laboratory Equipment Inventory.** All 9 (100.0 percent) institutions reported they have written policies and procedures for conducting an inventory of research laboratory equipment.
- **Chemical Hygiene Plan.** Eight (88.9 percent) of the 9 institutions reported they have developed a chemical hygiene plan in accordance with Title 29, Code of Federal Regulations, Section 1910.1450(e).
- **Training.** All 9 (100.0 percent) institutions reported they provide safety and emergency training to research laboratory personnel. Eight (88.9 percent) of 9 institutions reported they provide general laboratory safety training. Seven (77.8 percent) of the 9 institutions reported they provide radiation safety and biosafety training. Institutions were asked to provide the types of training they provide to research laboratory personnel. The results are based on the institutions' answers and may not necessarily indicate that an institution does not provide other types of training.

## Recommendation

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

## Institutions Could Improve the Monitoring of Research Laboratories

### Types of Research Activities in Research Laboratories

**Animal** - A laboratory in which the primary research involves animal subjects.

**Biosafety** - A laboratory that houses agents or toxins ranging from those that do not consistently cause disease in healthy adult humans to those that pose a high risk of life-threatening disease.

**Hazardous Chemical** - A laboratory that primarily handles, stores, or transfers a chemical for which there is significant evidence that acute or chronic health effects may occur in exposed individuals.

**Human** - A laboratory in which the primary research involves human subjects.

**Microbiology** - A laboratory that primarily handles, stores, or transfers microscopic forms of life.

**Radioactive** - A laboratory that primarily handles, stores, or transfers radioactive materials.

Sources: *Biosafety in Microbiological and Biomedical Laboratories*, 5th edition, U.S. Department of Health and Human Services, 2007; Title 29, Code of Federal Regulations, Section 1910.1450; and auditor research.

The 9 institutions self-reported that they have 9,251 research laboratories in 21 Texas cities (see Appendix 2 for more information about the research laboratories and their locations). Research laboratories are specialized rooms equipped to conduct systematic, intensive studies intended to increase knowledge or understanding of the study subjects. The types of research activities in research laboratories at Texas institutions include those involving animals, biosafety, hazardous chemicals, human subjects, microbiology, and radioactive materials (see text box). Researchers must submit their protocol, which is a formal description and design of their specific research project, to the specified oversight committee. The oversight committee must approve the protocol before the researcher can begin any work in the research laboratory. Due to the nature of the work conducted in research laboratories, ensuring the safety and security of research workers and the institution is vital.

### Research Laboratory Practices That Enhance Safety

The four institutions auditors visited had good practices in place to enhance the safety in their research laboratories in the following areas.

**Manuals and Guides.** All four institutions visited had general research laboratory safety manuals for the daily operations of the research laboratories, as well as safety manuals on specific types of research. The general daily operations research laboratory safety manuals generally contained information on reporting incidents and spills, wearing proper personal protection equipment, and following general safety practices when working in the research laboratory. The specific safety manuals generally contained information about working with radioactive materials, hazardous chemicals, or biohazardous materials.

**Training.** All four institutions visited require general safety training for all employees and students. The general safety training covers basic laboratory safety, such as common chemical hazards, accident prevention, laboratory waste management, and proper laboratory attire and personal protection equipment. Texas A&M and Texas Tech offer the general safety training online. North Texas and Southwestern provide the general safety training in person as part of their new employee and student orientations. North Texas also offers an online version of the training to new employees and students who are unable to attend the training orientations in person.

Also, all four institutions require all employees and students to complete training on the Hazard Communication Standard (Title 29, Code of Federal

Regulations, Section 1910.1200(h)) (see text box for a description of the standard). They also require individuals who work with hazardous chemicals, radioactive materials, biological materials, or animals to complete specific training. All four institutions track the required safety training to ensure that all employees and students have taken the courses. The primary researchers at all four institutions are responsible for ensuring their laboratory workers are trained in the specific chemicals, materials, and equipment used in their research laboratories.

#### How Monitoring of Research Laboratories Could Be Improved

The four institutions auditors visited have adequate policies and procedures for research laboratories that work with radioactive materials and select agents. However, as Table 2 shows, the four institutions self-reported that the majority (77.1 percent) of their research laboratories use hazardous chemicals and/or biological materials (which includes microbiology and biosafety materials).

Table 2

Total Number of Research Laboratories by Type of Research Activity Reported by the Four Health-related Institutions That Auditors Visited <sup>a</sup>		
Types of Research Activities	Total Research Laboratories <sup>b</sup>	Percent of Total
Human Subject	60	1.4%
Animal	295	6.8%
Radioactive Materials	636	14.7%
Microbiology	872	20.2%
Biosafety	1,091	25.2%
Hazardous Chemical	1,370	31.7%
Totals	4,324	100.0%

<sup>a</sup> Most research laboratories conduct multiple types of research activities within one laboratory room.

<sup>b</sup> For Southwestern, the totals in this table are based on its original self-reported total number of research laboratories of 914. Southwestern has an additional 1,875 shared research laboratory rooms for which Southwestern did not provide the breakdown of research activities.

Source: Self-reported data by the four health-related institutions auditors visited.

The four institutions that auditors visited could implement improvements in the monitoring of research laboratories using hazardous chemicals and/or biological materials in the following four areas.

**Purchasing Controls.** The four institutions visited did not have adequate purchasing controls over hazardous chemicals or biological materials. All

four institutions require primary researchers to obtain pre-approval for the purchase of animals, radioactive materials, and select agents (if in use at the institution); however, they do not require primary researchers to obtain pre-approval for hazardous chemicals or biological materials purchases.

Researchers are supposed to use only the chemicals and materials listed in their protocols as approved by the oversight committee. Without adequate purchasing controls, institutions cannot prevent research laboratories from purchasing unauthorized materials. For example, Texas A&M recently discovered that one of its research laboratories was working with a biological material that was not listed on the researcher's protocol and had not been approved by the institution's oversight committee.

North Texas and Texas Tech allow primary researchers to purchase hazardous chemicals and biological materials using procurement charge cards. Texas A&M allows primary researchers to purchase hazardous chemicals and biological materials directly from the vendor. Southwestern requires these purchases to be made through the institution's online purchasing system. However, none of the four institutions tracks the purchases made by primary researchers or ensures that researchers are complying with the institution's purchasing requirements. Without requiring pre-approval or monitoring purchases, the institutions cannot ensure that all hazardous chemicals and biological materials are authorized and tracked.

**Inventory.** The institutions that are not adequately controlling hazardous chemical and biological materials purchases could conduct an inventory of these items at least annually as a compensating control. A regularly conducted inventory could help the institutions (1) identify which hazardous chemicals and biological materials are present on their campuses, (2) monitor whether researchers are complying with institutional purchasing policies, and (3) verify that researchers are using only authorized chemicals and materials. The four institutions auditors visited have set time frames and processes for inventorying radioactive materials. However, the four institutions do not have standard time frames or processes for conducting inventories of hazardous chemicals and biological materials in their research laboratories.

According to the institutions' written policies and procedures, all four institutions conduct at least annual inventories of **radioactive materials** and maintain a record of all radioactive materials on their campuses. All four institutions also require the research laboratories with radioactive materials to maintain a log documenting the use of these materials. The logs are then reviewed during either laboratory inspections or meetings of the radiation safety committee.

North Texas and Texas A&M reported that they currently conduct an annual inventory of **hazardous chemicals** and compile one master list of all hazardous chemicals on their campuses. Southwestern and Texas Tech

require their research laboratories to maintain a list of all hazardous chemicals stored in the laboratories. This list is then reviewed during annual inspections of the research laboratories, according to the institutions' inspection checklists. However, Southwestern and Texas Tech do not combine the individual research laboratory lists into an institution-wide inventory. Texas Tech is currently in the process of implementing a bar code system for inventorying all chemicals on all campuses. Without an institution-wide inventory list, the institution cannot easily determine what hazardous chemicals or biological materials are located on campus. A master list maintained in one location could help ensure an appropriate response during a campus-wide emergency.

None of the four institutions performs an annual inventory of **biological materials**. Written policies and procedures at three of the four institutions state the research laboratories are responsible for maintaining a list of their biological materials. However, only Texas Tech has policies and procedures to review the list during inspections of its research laboratories.

Inspections. All four institutions have written policies and procedures requiring at least annual inspections of all research laboratories using radioactive materials and animals and vivariums. However, policies and procedures for inspections of research laboratories using hazardous chemicals and/or biological materials vary among the four institutions. Also, the policies and procedures do not always specify how often research laboratories must be inspected, which can lead to risks not being identified on a timely basis or limited resources being used inefficiently.

Examples of how institutions' policies and procedures for inspections vary include:

- North Texas has written policies and procedures requiring annual inspections of research laboratories using hazardous chemicals and quarterly inspections of research laboratories using biological materials. North Texas also has inspection checklists for research laboratories using hazardous chemicals and/or biological materials. North Texas reported it annually inspects research laboratories using hazardous chemicals; however, it has inspected all of the research laboratories using biological materials only once since 2007.
- Texas Tech has written policies and procedures requiring semi-annual inspections of research laboratories using biological materials, but it does not have written policies and policies for inspections of research laboratories using hazardous chemicals. Texas Tech has an inspection checklist for both types of research laboratories. The institution reported it inspects all research laboratories using hazardous chemicals and/or biological materials on a semi-annual basis.

- Southwestern has draft policies and procedures requiring inspections of research laboratories to be performed based on a risk assessment of the hazards/agents being utilized; but, those policies and procedures do not specify how often the inspections must be conducted. Southwestern has inspection checklists for research laboratories using hazardous chemicals and/or biological materials. Southwestern reported in May 2009 that it had inspected about 85 percent of all of its research laboratories. The institution stated that it is working toward inspecting all research laboratories annually, with higher-risk research laboratories inspected twice a year.
- Texas A&M has written policies and procedures or an inspection checklist for three of its five campuses with research laboratories that use hazardous chemicals. Of the three campuses with inspection procedures, only one campus's procedures specify how often research laboratories using hazardous chemicals will be inspected. Texas A&M has an inspection checklist, but it does not have written policies and procedures for inspecting research laboratories using biological materials at all of its campuses. Texas A&M reported that its research laboratories using hazardous chemicals are inspected at least annually at three of its five campuses. Also, it reported that inspections are conducted on all Biosafety Level 1 research laboratories when the laboratories are set up, and every three years thereafter. Research laboratories above Biosafety Level 1 are inspected annually or when a change is made to the primary researcher's protocol. (See text box on page 1 for definitions of the biosafety levels.)

#### The Precursor Chemical Program

The memorandum of understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program requires higher education institutions to have policies and procedures in place that:

- Maintain purchase records of controlled items.
- Prohibit the sale or transfer of controlled items.
- Ensure the security of controlled items.
- Require that all loss or theft of controlled items is reported to the Department of Public Safety.

Controlled items are certain research chemicals and equipment that could be misappropriated to make and distribute illegal substances.

Sources: *Memorandum of Understanding between the Texas Department of Public Safety and the Texas Higher Education Coordinating Board* and the Department of Public Safety's Web site.

Precursor Chemical Program. The four institutions auditors visited substantially complied with the Precursor Chemical Program (Program) requirements outlined in *Memorandum of Understanding between the Texas Department of Public Safety and the Texas Higher Education Coordinating Board*. The Program's goal is to stop the diversion of chemicals and equipment from being used in the illegal manufacturing of drugs. Texas Health and Safety Code, Sections 481.002 (51) and (53), list 19 chemicals and 14 types of chemical equipment (such as flasks) that are considered controlled items and, as a result, the sale, transfer, and purchase of these items are regulated by the Department of Public Safety.

Of the four institutions auditors visited:

- Texas A&M had policies and procedures that addressed all four requirements of the memorandum of understanding (see text box).
- North Texas had policies and procedures that addressed

three requirements, but it did not have policies and procedures for reporting thefts or losses of controlled items to the Department of Public Safety.

- Southwestern had policies and procedures for two requirements, but it did not have policies and procedures for prohibiting the sale or transfer of controlled items or for reporting thefts or losses of controlled items to the Department of Public Safety.
- Texas Tech had policies and procedures that addressed all four requirements; however, the policies and procedures were in draft form and had not been implemented.

## Recommendations

Texas health-related institutions should:

- Consider implementing purchasing controls, such as obtaining pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.
- Implement policies and procedures that specify how often the different types of research laboratories will be inspected.
- Verify that they have written and approved policies and procedures in place to address all four requirements of the memorandum of understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

Chapter 1-D

## Notable Security Practices at Selected Institutions

At selected institutions, auditors identified notable security practices related to research laboratories that other health-related institutions may want to consider implementing. Specifically:

- Texas Tech's Laboratory Safety Services unit is in the process of implementing a **bar coding system to inventory all of the chemicals on all campuses**. Laboratory Safety Services will place a bar code on each existing chemical and enter the information into the inventory system. Laboratory Safety Services will place bar codes on the newly purchased chemicals at the receiving dock before the chemicals are distributed.

- North Texas's Safety Office created and maintains numerous **databases used to track research laboratory-related information**. These include databases of the inventory of materials, safety training and attendees, emergency contacts for research laboratories, and building maps. The building maps database allows a user to click on a research laboratory and view the materials contained within it. It also lists the emergency contact information for each room and research laboratory. These maps could help ensure there is an appropriate response to an emergency in a research laboratory.
- North Texas's vivarium and the animal use program have 19 years and 8 years, respectively, of **exemplary compliance with its two oversight agencies**: the Association for Assessment and Accreditation of Laboratory Animal Care and the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). APHIS has sent its inspectors to North Texas for training.
- Southwestern uses an **access badge system** for all its buildings and research laboratories. The system allows the institution to have entry logs for all doors and to restrict access to certain buildings and research laboratories. The badge system also allows the institution to deny research laboratory access to researchers and workers who have not taken the required training courses.

## ***Status of Institutions' Emergency Management Plans***

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All nine institutions have designed and implemented campus safety and security emergency management plans. These plans should include ongoing risk assessment, monitoring, and testing of the plans to ensure an appropriate response in the event of an actual emergency. The institutions could improve their emergency management plans by ensuring they are up to date, approved by institution management, and comprehensive.

House Bill 1831 (81st Legislature, Regular Session) relating to disaster preparedness and emergency management was signed by Governor Rick Perry on June 19, 2009, and will become effective September 1, 2009. This bill requires each institution of higher education to adopt and implement a multi-hazard emergency operations plan for use at the institution. The plan must address mitigation, preparedness, response, and recovery. Prior to this bill, state requirements were unclear as to whether institutions must adopt National Incident Management System (NIMS) standards, which are designed to provide a consistent approach among differing agencies and institutions to emergency management. As a result, as of June 2009, the concepts addressed in the institutions' plans and the implementation statuses of the plans differed among the nine institutions.

Auditors evaluated the institutions' emergency management plans using 11 broad categories of state planning standards most applicable to higher education institutions. Eight of the 11 categories are discussed in Chapter 2-A; auditors did not identify significant issues related to the other 3 categories. (See Appendix 3 for a full listing of the categories and results.) Auditors identified four categories for which the majority of institutions have attained NIMS standards and/or the Governor's Division of Emergency Management's (Division) guidelines and four categories for which the institutions could improve their emergency planning.

In addition, auditors conducted a survey of the institutions to gather information on emergency preparedness, mental health and behavioral concerns, campus law enforcement, mitigation activities, and research laboratory safety. Some of the survey results are discussed below (see Appendix 4 for the full survey results).

Chapter 2-A

### **All Nine Institutions Have Developed Emergency Management Plans**

All nine institutions have designed and implemented campus safety and security emergency management plans. Some of the institutions' emergency management plans include ongoing risk assessment, while all the plans include monitoring and testing of the plans to ensure an appropriate response in the event of an actual emergency. Key elements in the institutions'

emergency management plans vary due to institutions' use of different guidance in creating their plans.

In a survey conducted by the State Auditor's Office, seven institutions reported that they incorporated the NIMS standards in their plans, while two institutions followed other guidance. State requirements are unclear as to whether institutions are required to adopt NIMS standards.

In February 2005, Governor Perry issued an executive order adopting NIMS as the emergency management standard for the State; however, the executive order did not include an explicit requirement for higher education institutions to base their emergency management plans on NIMS guidelines or to comply with NIMS standards.

House Bill 1831, which will become effective September 1, 2009, requires higher education institutions to adopt and implement a multi-hazard emergency operations plan for use at the institution. While the institution's plan must address mitigation, preparedness, response, and recovery, House Bill 1831 does not specifically require institutions to adopt NIMS standards. However, the four phases of emergency management required by House Bill 1831 are incorporated in the Division's guidelines.

To evaluate the nine institutions' emergency management plans, auditors used the Division's detailed emergency management plan template and guidelines for local governments, which are based on NIMS standards. Although not specific to a higher education environment, these guidelines can provide a common framework and set of terminology for institutions to use when working with federal, state, and local entities during an emergency.

Auditors evaluated the institutions' emergency management plans using 11 broad categories of state planning standards most applicable to higher education institutions (see Appendix 3 for a full listing of the categories). Auditors identified four categories for which the majority of institutions have attained NIMS standards and/or Division guidelines, and four categories for which the institutions could improve their emergency planning. Auditors did not identify significant issues related to the other three categories.

#### Consistently Addressed Categories

- **Concept of Operations:** This category describes the institution's general approach to emergency situations, including the emergency command structure and the institution's emergency operations center. Of the 9 institution plans reviewed, 8 (88.9 percent) addressed the actions to be taken during the four phases of emergency management, which are mitigation, preparedness, response, and recovery.
- **Organization and Assignment of Responsibilities:** This category describes the emergency organization, describes the responsibilities of the president and

other members of the executive staff, and outlines the responsibilities for various emergency service and support functions. All 9 institutions' plans (100.0 percent) described the emergency organization; 7 plans (77.8 percent) described the responsibilities of the president and other members of the executive staff; and 7 plans (77.8 percent) outlined the responsibilities for various emergency service and support functions.

- **Direction and Control:** This category (1) identifies by title and position the people responsible for providing guidance to the emergency management program and for directing and controlling response and recovery activities and (2) describes local emergency facilities, such as the incident command post and emergency operations center. All 9 (100.0 percent) of the plans reviewed indicated who was responsible for directing and controlling an emergency response and 7 (77.8 percent) plans described the local emergency facilities and identified the people responsible for providing guidance to the emergency management program.
- **Readiness Levels:** The Division's guidelines recommend that entities establish and include in their emergency management plan, a readiness-level classification system, which would be used to assess the current threat level the entity faces. Eight (88.9 percent) of the 9 institutions have readiness-level classification systems. Of those 8 institutions, 7 (87.5 percent) institutions described in their emergency management plans the readiness (threat) levels on campus and the actions to be taken at the different levels. One (12.5 percent) of the 8 institutions maintains its readiness-level classification system in a document that is separate from its emergency management plan.

#### Categories That Could Be Improved

- **Plan Approval and Implementation:** According to the Division's guidelines and NIMS standards, all emergency management plans must be approved by the officials responsible for the entity. Approval of an emergency management plan by an institution's board of regents and president adds credibility to the institution's emergency operations and is one way to delegate to responsible personnel the authority to act during an emergency. The nine institutions' emergency management plans reviewed differ in levels of implementation. Specifically:
  - ♦ Six (66.7 percent) of the 9 institutions' emergency management plans were formally approved by institutional executive management.
  - ♦ One of the six institutions with an emergency management plan formally approved by management, has an emergency management plan that is a template to be completed by each of its campuses.
- **Situations and Assumptions:** Seven (77.8 percent) of the 9 plans reviewed contained a statement summarizing potential risks or hazards to the

institution. However, only 2 (22.2 percent) plans reviewed included a hazard risk assessment that included the likelihood and potential impact of the identified threats. In addition, 4 (44.4 percent) institutions have hazard risk assessments, but the risk assessments were separate documents from the institutions' emergency management plans. According to the Division's guidelines and NIMS standards, all plans should include a hazard risk assessment that identifies the threats that an entity faces and an estimation of the likelihood and potential impact of those threats.

- **Administration and Support:** Four (44.4 percent) of the 9 plans reviewed established requirements for reports that are required during emergency operations and record keeping related to emergencies. Six (66.7 percent) plans outlined policies on mutual aid agreements and described policies and/or assigned responsibility for ensuring that personnel receive the appropriate training to implement the plan in an emergency. According to the Division, plans should outline general policies for administrating resources, including requirements for tracking the source and use of resources and expenditures during emergencies; plans also should reference any mutual aid agreements.
- **Development and Maintenance:** Five (55.6 percent) of the 9 plans reviewed stated how the plan should be distributed. According to the Division, plans and annexes (which describe how certain emergency functions will be performed) should be distributed to the individuals and departments named in the plan, as well as those entities and individuals who are responsible for carrying out tasks outlined in the plan. The Division also recommends including a distribution list with the plan. Thorough distribution of an emergency management plan helps inform responders about their roles, which prepares them for their responsibilities during an emergency response.

In the event of an actual emergency, the issues identified above could hinder institutions' implementation of their emergency management plans.

### Recommendation

The institutions should develop plans to ensure they comply with House Bill 1831 (Relating to Disaster Preparedness and Emergency Management) requirements once that bill becomes effective on September 1, 2009. The plans should include persons responsible and time frames for compliance with requirements.

## Status of Campus Emergency Management

Auditors conducted a survey of all nine health-related institutions to gather information on emergency preparedness, mental health and behavioral concerns, campus law enforcement, mitigation activities, and research laboratory safety (see Chapter 1-B for a summary of the survey results for the research laboratory safety section). The information presented below was self-reported by the institutions in their responses to the survey (see Appendix 4 for all survey results).

### Emergency Preparedness

Emergency preparedness is a critical component of emergency planning and increases an institution's ability to effectively respond to emergencies that may occur. Emergency preparedness at institutions includes conducting risk assessments, developing an emergency management plan, identifying emergency resources, conducting training and exercises, and establishing emergency notification systems.

- All 9 institutions (100.0 percent) surveyed have an emergency management plan and all reported they review the plans and update the list of key individuals involved in emergency responses at least once per year.
- Seven (77.8 percent) of the 9 institutions reported they conduct a campus-specific risk assessment to identify potential hazards at least once per year.
- Seven (77.8 percent) of 9 institutions reported that campus law enforcement personnel receive NIMS training. Four (44.4 percent) of the 9 institutions reported key administrative staff, first responders, and public information officers receive NIMS training.
- Eight (88.9 percent) of 9 institutions reported they conducted a tabletop, functional, or full-scale exercise of their emergency management plan in 2008 or 2009 (see text box for definition of the exercise types). Eight (88.9 percent) of 9 institutions reported they develop corrective action plans after exercises of their emergency management plans.
- All 9 (100.0 percent) institutions reported using e-mail and their Web sites to transmit safety warnings and information to students, faculty, staff, and patients (see Table 3 on the next page).

#### Types of Emergency Management Plan Exercises

**Tabletop** - Response agencies meet to understand and talk through an integrated response to a specific emergency situation.

**Functional** - A simulated emergency that is designed to test and evaluate selected emergency functions and the interaction of various levels of government, response organizations, volunteer groups, and industry.

**Full-scale** - A simulated emergency that includes activation of an incident command post and actual deployment of response personnel and equipment.

Source: Homeland Security Exercise and Evaluation Program.

Table 3

13. What methods does your institution use to transmit safety warnings/emergency information to students/faculty/staff/patients? (Check all that apply)		
Methods	Number of Institutions	Percent of Institutions
Public Address System	2	22.2%
E-mail	9	100.0%
Web site	9	100.0%
Reverse 911	2	22.2%
Text Messaging	5	55.6%
Sirens	2	22.2%
Fire Panel Boxes	5	55.6%
Flat Panel Monitors	2	22.2%
Radios	5	55.6%
Broadcast Message to Social Network Accounts	1	11.1%
Broadcast Message to Instant Messaging Account	1	11.1%

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey. (See Appendix 4 for entire survey results.)

- Nine (100.0 percent) institutions reported using their Web sites; 8 (88.9 percent) institutions reported using orientation; and 7 (77.8 percent) reported using faculty/staff meetings, training classes, and electronic notifications to inform students, faculty, and staff about their emergency communication systems.

#### Mental Health and Behavioral Concerns

Of the nine institutions in Texas, eight enroll students. These eight institutions provide a variety of mental and behavioral health services for students, faculty, and staff. Specifically:

- Seven (87.5 percent) of the 8 institutions reported counselors and campus law enforcement personnel receive training that covers mental health issues.
- Five (62.5 percent) of the 8 institutions reported they provide faculty and staff information on how to identify individuals who may be at risk of harming themselves or others. Four (50.0 percent) institutions provide students this information.
- All 8 (100.0 percent) institutions reported they have a process in place that allows faculty and staff to report at-risk individuals and/or suspicious activities. Six (75.0 percent) reported they use their Web sites, 5 (62.5

percent) reported using orientation, and 3 (37.5 percent) reported using electronic notifications to notify faculty and staff of this process.

- Five (62.5 percent) of the 8 institutions reported they have a process in place that allows students to report at-risk individuals and/or suspicious activities. Six (75.0 percent) reported they use their Web sites, 5 (62.5 percent) reported using brochures, and 4 (50.0 percent) reported using orientation and electronic notifications to notify students of this process.

**Campus Law Enforcement**

Seven (77.8 percent) of 9 institutions reported they have their own campus law enforcement personnel. Two (22.2 percent) institutions reported they use their institution’s system’s law enforcement. In addition:

**Law Enforcement Accreditation Programs**

To become accredited by the Commission on Accreditation for Law Enforcement Agencies (CALEA) or the International Association of Campus Law Enforcement Administrators (IACLEA), agencies must enroll in the program, conduct a self-assessment, pass an on-site agency evaluation, and pass a final review. If accredited, an agency must maintain compliance and reaccreditation on an annual basis.

Source: CALEA and IACLEA law enforcement accreditation programs.

- Two (22.2 percent) of the 9 institutions reported their campus law enforcement entities are accredited by both the Commission on Accreditation for Law Enforcement Agencies (CALEA) and the International Association of Campus Law Enforcement Administrators (IACLEA) (see text box). One (11.1 percent) of the 9 institutions reported it is accredited by IACLEA. In addition, one institution reported that it is in the process of obtaining accreditation from CALEA and another institution reported that it is in the process of obtaining accreditation from IACLEA. Law enforcement accreditations can help assure the public that a law enforcement entity conforms to professional standards.
- Eight (88.9 percent) of the 9 institutions reported their campus law enforcement personnel are authorized to carry handguns (see Table 4). One institution did not answer the survey question.

Table 4

3. Which of the following devices are the institution's campus law enforcement personnel authorized to carry? (Check all that apply)		
Device	Number of Institutions Whose Law Enforcement Personnel Are Authorized to Carry Device	Percent of Institutions Whose Law Enforcement Personnel Are Authorized to Carry Device
Handguns	8	88.9%
Rifles/Long Guns	5	55.6%
Tasers or Stun Guns	5	55.6%
Batons	7	77.8%
Pepper Spray	8	88.9%
Other (Shotguns)	2	22.2%
Did Not Answer	1	11.1%

Source: Self-reported by the nine health-related institutions in the State Auditor’s Office 2009 survey. (See Appendix 4 for entire survey results.)

- All 9 (100.0 percent) institutions reported they conduct active shooter emergency training.
- Five (55.6 percent) of the 9 institutions reported they conducted biohazard emergency exercises, such as an emergency involving a blood-borne pathogen or select agent.

### Mitigation Activities

Institutions reported they had incorporated mitigation activities into their emergency management programs. These mitigation activities include offering education and outreach programs and implementing physical security measures around campus.

The eight health-related institutions that have students offer a variety of safety education and/or crime prevention programs to students (see Table 5).

Table 5

5. Does the institution have education and/or prevention programs for students in the following subject areas? (Check all that apply) <sup>a</sup>		
Type of Education Program	Number of Institutions Offering Program	Percent of Institutions Offering Program
Drug Education	6	85.7%
Alcohol Education	5	71.4%
Rape	7	100.0%
Domestic/Dating Violence	7	100.0%
Harassment	6	85.7%
Theft	6	85.7%
Self-defense Training	5	71.4%
Community Emergency Response Team (CERT)	2	28.6%
Mental Illness	5	71.4%
Suicide	5	71.4%
Bullying	2	28.6%
Depression	4	57.1%
Cyber Crime	7	100.0%
Hazing	4	57.1%
Community Policing	3	42.9%
Other (Disaster Medicine and Rape Aggression Defense Training)	2	28.6%

<sup>a</sup> Two institutions responded that they do not have students. One of the institutions does not have students. The second institution does not have undergraduate students, but it does have graduate students. The percentages in this table were calculated based on the seven institutions that responded to this survey question.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey. (See Appendix 4 for entire survey results.)

Institutions reported they have implemented different physical security measures around campus, such as installing security cameras and card access on doors (see Table 6). In addition:

- Eight (88.9 percent) of the 9 institutions reported they conduct a physical security assessment on campus, such as an evaluation of site and building safety, at least once per year.
- All 9 (100.0 percent) institutions reported they conduct safety walks around campus more than once per year.

Table 6

4. Which of the following physical security features have been implemented at the following locations on campus? <sup>a</sup>						
Physical Security Feature	Administration Building		Classroom Building		Campus Grounds	
	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature
Emergency Call Boxes	4	44.4%	3	42.9%	6	75.0%
Security Cameras	9	100.0%	7	100.0%	6	75.0%
Fire Alarms	9	100.0%	7	100.0%	1	12.5%
Card Access on Doors	9	100.0%	6	85.7%	1	12.5%
Timed Door Locks	6	66.7%	4	57.1%	0	0.0%
Sprinkler Systems	9	100.0%	7	100.0%	0	0.0%
Safety Escort Service	7	77.8%	5	71.4%	7	87.5%
Panic Buttons	7	77.8%	4	57.1%	0	0.0%
Security Guard	8	88.9%	6	85.7%	7	87.5%
Visitor Screening	5	55.6%	3	42.9%	1	12.5%
Not Applicable	0	0.0%	2	22.2%	1	11.1%

<sup>a</sup> Institutions could select all that applied. Percentages were based on the number of institutions that have these facilities.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey. (See Appendix 4 for entire survey results.)

## ***The Institutions Substantially Complied with Federal Clery Act Reporting Requirements for Campus Security and Crime***

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The federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act) requires institutions of higher education that

### **Federal Clery Act**

The federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act), originally known as the Crime Awareness and Campus Security Act of 1990, requires higher education institutions that receive Title IV federal student financial assistance program funding to:

- Give timely warnings of crimes that represent a threat to the safety of students or employees.
- Keep a daily crime log that is open to public inspection.
- Publish an annual security report and distribute it to all current students and employees, and inform prospective students and employees about the content and availability of the report.
- Collect and report crime data in an annual security report and to the U.S. Department of Education.

Source: U.S. Department of Education and Title 34, Code of Federal Regulations, Sections 668.46 and 668.41(e).

receive student financial assistance to disclose campus crime statistics and security information to current and prospective students and employees (see text box). Compliance with the Clery Act is intended to provide students, higher education employees, and their families with accurate and timely information to help them make informed decisions about personal safety and enrollment at and continued support of specific higher education institutions.

Texas health-related institutions (institutions) self-report this information to the U.S. Department of Education, prospective and current students and employees, and the public. In *An Audit Report on Campus Safety and Security Emergency Management Plans at Texas Public Universities* (State Auditor's Office Report No. 09-009, October 2008) the State Auditor's Office reported that the State does not have a central reporting function to receive, analyze, and monitor the reported information on campus crime and security. Summary information from the institutions may be a useful tool for the State to identify trends and compare the crime rates on Texas higher education campuses with those in other states and with national crime trends.

For calendar year 2007, the 8 institutions with students self-reported that 280 criminal offenses occurred on campus, on a non-campus property owned or controlled by the institution or an institution-recognized student organization, or on public property within the campus or adjacent to and accessible from the campus.<sup>3</sup> The majority of criminal offenses reported for 2007 were burglary (53.6 percent), motor vehicle theft (20.0 percent), and aggravated assault (16.0 percent).

Table 7 on the next page shows the criminal offenses by category reported by the institutions for calendar year 2007. See Appendix 5 for information on the criminal offenses reported by the institutions in calendar years 2001 through 2006.

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<sup>3</sup> The University of Texas Health Science Center at Tyler is not required to report annual crime statistics under the Clery Act because it does not receive federal student financial assistance, and it did not prepare an annual report under the Clery Act. However, the institution compiles and submits its crime statistics to The University of Texas System Police, which compiles and publishes the crime statistics for all of The University of Texas System's universities and institutions in an annual crime report.

Table 7

Total Number of Criminal Offenses Reported by the State's Eight Health-related Institutions Calendar Year 2007 <sup>a</sup>		
Type of Criminal Offense	Number of Offenses	Percent of Total Offenses
Murder/Non-negligent manslaughter	1	0.4%
Negligent Manslaughter	0	0.0%
Sex offenses - Forcible	12	4.3%
Sex offenses - Non-forcible	0	0.0%
Robbery	12	4.3%
Aggravated Assault	45	16.0%
Burglary	150	53.6%
Motor Vehicle Theft	56	20.0%
Arson	4	1.4%
<b>Totals</b>	<b>280</b>	<b>100.0%</b>
<sup>a</sup> Crime statistics for calendar year 2007 are reported in the institutions' 2008 annual crime report.		

Source: U.S. Department of Education's Office of Postsecondary Education campus security data analysis tool at <http://ope.ed.gov/security/>.

Under the Clery Act, institutions are required to publish an annual security report with specific information on their campus crime statistics and campus security policies to all current and prospective students and employees. All eight institutions substantially complied with the federal requirements for reporting campus crime statistics and campus security policies.

Auditors identified 21 regulations that may be addressed in an institution's annual crime report. All institutions must report information regarding 19 of the regulations. Reporting information regarding one additional regulation is optional, and reporting information regarding another additional regulation is only required for institutions with multiple campuses. Auditors reviewed the eight institutions' 2008 annual crime reports and identified the following:

- Five (62.5 percent) of 8 institutions included information regarding all 19 required reporting regulations in their 2008 annual crime reports.
- Three (37.5 percent) of 8 institutions did not include information regarding all 19 required reporting regulations in their 2008 annual crime reports. These institutions were: Texas A&M Health Science Center (Texas A&M), the University of Texas Southwestern Medical Center at Dallas (Southwestern), and the University of North Texas Health Science Center at Fort Worth (North Texas).

Table 8 lists the compliance results for each of the eight institutions.

Table 8

Summary of Auditors' Review of 2008 Annual Crime Reports at Eight Health-related Institutions <sup>a</sup>			
Institution	Number and Percent of Regulations Included in Annual Crime Report	Number and Percent of Regulations Not Included in Annual Crime Report	Total Number of Regulations that Apply to the Institution <sup>b</sup>
Texas A&M Health Science Center	6 (30.0%)	14 (70.0%)	20
Texas Tech University Health Sciences Center	21 (100.0%)	0 (0.0%)	21
The University of Texas Health Science Center at Houston	20 (100.0%)	0 (0.0%)	20
The University of Texas Health Science Center at San Antonio	21 (100.0%)	0 (0.0%)	21
The University of Texas M.D. Anderson Cancer Center	20 (100.0%)	0 (0.0%)	20
The University of Texas Medical Branch at Galveston	19 (100.0%)	0 (0.0%)	19
The University of Texas Southwestern Medical Center at Dallas	19 (95.0%)	1 (5.0%)	20
University of North Texas Health Science Center at Fort Worth	19 (95.0%)	1 (5.0%)	20

<sup>a</sup> The University of Texas Health Science Center at Tyler is not required to report annual crime statistics under the Clery Act because it does not receive federal student financial assistance, and it did not prepare an annual report under the Clery Act. However, the institution compiles and submits its crime statistics to The University of Texas System Police, which compiles and publishes the crime statistics for all of The University of Texas System's universities and institutions in an annual crime report.

<sup>b</sup> All institutions are required to comply with 19 of the 21 regulations; one regulation is optional and another regulation is applicable only if the institution has multiple campuses.

Texas A&M's annual crime report did not report information for 14 of the 20 regulations. (See Table 9 on the next page for a list of regulations for which Texas A&M did not report information.) After auditors notified Texas A&M's management about the missing regulations, Texas A&M revised its 2008 crime report on its Web site to include information regarding 12 of the missing 14 regulations. Texas A&M management indicated they are working on developing information regarding the remaining two regulations.

Southwestern's annual crime report did not contain a description of its program for drug or alcohol-abuse education, even though Southwestern has such a program in place. After auditors notified institution management about the missing regulation, Southwestern updated its 2008 annual crime report on its Web site to include information regarding the missing regulation.

North Texas's annual crime report did not contain a description of a campus sexual assault program to prevent sex offenses, even though North Texas offers this program. Auditors notified institution management of the missing information.

Table 9 lists the regulations that the three institutions were missing information on in their 2008 annual crime reports.

Table 9

List of Clery Act Regulations for Which Information Was Missing from Three Health-related Institutions' 2008 Reports		
Regulation Citation	Regulation Description	Institution Missing Regulation
Title 34, Code of Federal Regulations, Section 668.46(b)(2)(ii)	Policies for preparing the annual disclosure of crime statistics.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(2)(iii)	Policies and procedures that allow victims or witnesses to report crimes on a voluntary confidential basis.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(3)	Policies on safety of and access to campus facilities including campus residences.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(3)	Policies on security considerations used in the maintenance of campus facilities.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(7)	Policies regarding the monitoring and recording through local police agencies of criminal activity in which members of student organizations engage at off-campus locations.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(8) Title 34, Code of Federal Regulations, Section 668.46(b)(9)	Policies on possession, use, and sale of alcohol or illegal drugs and enforcement of federal and state laws.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(11)	Policies regarding campus sexual assault program to prevent sex offenses, and procedures to follow when a sex offense occurs.	Texas A&M Health Science Center University of North Texas Health Science Center at Fort Worth
Title 34, Code of Federal Regulations, Section 668.46(b)(4)(i)	Policies regarding enforcement and arrest authority of security personnel.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(4)(i)	Policies on the working relationship of security personnel with state and local police agencies.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(4)(ii)	Policies regarding accurate and prompt reporting of all crimes to campus police and appropriate police agencies.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(5) Title 34, Code of Federal Regulations, Section 668.46(b)(6)	Description of program to inform campus community about campus security procedures and crime prevention.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(b)(10)	Description of program for drug or alcohol-abuse education.	Texas A&M Health Science Center The University of Texas Southwestern Medical Center at Dallas
Title 34, Code of Federal Regulations, Section 668.46(b)(12)	Statement advising the campus community where law enforcement agency information provided by a State concerning registered sex offenders may be obtained.	Texas A&M Health Science Center
Title 34, Code of Federal Regulations, Section 668.46(d)	The institution produced a separate annual report for each separate campus, if applicable.	Texas A&M Health Science Center

Source: Auditors' review of 2008 annual crime reports at the State's eight health-related institutions and Title 34, Code of Federal Regulations, Part 668 (institutional security policies and crime statistics).

## Recommendations

Texas A&M, Southwestern, and North Texas should ensure their annual crime reports are in compliance with all Clery Act federal regulations.

The Legislature should consider requiring the State's higher education institutions, including the health-related institutions, to submit their Clery Act annual security reports to the Department of Public Safety.

## *List of All Recommendations in This Report*

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All of the recommendations in this report are listed below.

### Chapter 1

Texas health-related institutions should:

- Consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.
- Consider implementing purchasing controls, such as obtaining pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.
- Implement policies and procedures that specify how often the different types of research laboratories will be inspected.
- Verify that they have written and approved policies and procedures in place to address all four requirements of the memorandum of understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

### Chapter 2

Texas health-related institutions should develop plans to ensure they comply with House Bill 1831 (Relating to Disaster Preparedness and Emergency Management) requirements once that bill becomes effective on September 1, 2009. The plans should include persons responsible and time frames for compliance with requirements.

### Chapter 3

Texas A&M, Southwestern, and North Texas should ensure their annual crime reports are in compliance with all Clery Act federal regulations.

The Legislature should consider requiring the State's higher education institutions, including the health-related institutions, to submit their Clery Act annual security reports to the Department of Public Safety.

# Appendices

## Appendix 1

### *Objective, Scope, and Methodology*

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#### Objective

The objective of this audit was to determine whether the State's health-related institutions have designed and implemented campus safety and security emergency management plans that include ongoing risk assessment, monitoring, and testing of the plan to ensure an appropriate response in the event of an actual emergency.

#### Scope

The scope of this audit covered the period from September 1, 2007, through March 31, 2009.

#### Methodology

The audit methodology included reviewing emergency management plans, surveying institution personnel about their emergency management practices, reviewing annual crime reports, surveying institution personnel about their research laboratories, and conducting site visits at four institutions regarding the safety and monitoring of their research laboratories. Auditors also conducted a survey of nine institutions to gather information on emergency preparedness, mental health and behavioral concerns, campus law enforcement, mitigation activities, and research laboratory safety.

Information collected and reviewed included the following:

- Current emergency management plans from the nine health-related institutions, including the following from each institution.
  - ♦ List of mutual aid agreements between the institution and external entities regarding emergency operations.
  - ♦ Emergency operations structure and chain of command.
  - ♦ Organizational charts for emergency operations.
  - ♦ Hazard risk assessments, if not included in the emergency management plan.
- 2008 annual crime reports (calendar year 2007 crime statistics) filed by each institution under the 1998 Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act.

- Annual crime statistics for criminal offenses for calendar years 2001 through 2007 for eight health-related institutions.
- Federal and Texas laws regarding campus safety and research laboratories.
- Policies and procedures for nine health-related institutions related to the following:
  - ♦ Reporting incidents (for example, chemical spills, infections, and needle pricks) occurring in research laboratories.
  - ♦ Emergency procedures for securely storing items such as chemicals, viruses, and equipment during a catastrophic event.
  - ♦ Emergency procedures for evacuating laboratory animals if necessary during a catastrophic event.
- Policies and procedures related to the safety and monitoring of research laboratories from the four health-related institutions auditors visited.
- Internal audit reports from nine health-related institutions.
- Student enrollment, full-time employee, and total research expenditure information for the nine health-related institutions.

Procedures and tests conducted included the following:

- Surveyed emergency management personnel at nine health-related institutions about campus safety and security emergency management operations and analyzed survey results.
- Surveyed institutional personnel at the nine health-related institutions about the types and locations of their research laboratories and compiled results.
- Conducted site visits at four institutions, which included interviewing key personnel about the safety and monitoring of research laboratories and reviewing the institutions' policies and procedures for the safety and monitoring of their research laboratories.
- Analyzed crime statistics for eight health-related institutions for calendar years 2001 to 2007.

Criteria used included the following:

- National Incident Management System (NIMS) standards, U.S. Department of Homeland Security.

- Governor's Division of Emergency Management templates, checklists and *Local Emergency Management Planning Guide*, January 2008.
- Governor Rick Perry's Executive Order RP 40.
- Title 20, United States Code, Section 1092 (f) (the 1998 Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act).
- Title 34, Code of Federal Regulations, Section 668.46 (Institutional Security Policies and Crime Statistics).
- Texas Government Code, Chapter 418 (Texas Disaster Act).
- Health Research Extension Act of 1985, Public Law 99-158, Office of Laboratory Animal Welfare, National Institutes of Health, U.S. Department of Health and Human Services.
- Public Health Service Policy on Humane Care and Use of Laboratory Animals, Office of Laboratory Animal Welfare, National Institutes of Health, U.S. Department of Health and Human Services.
- Title 45, Code of Federal Regulations, Part 46 (Protection of Human Subjects).
- *Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines)*, Office of Biotechnology Activities, Office of Science Policy, National Institutes of Health, U.S. Department of Health and Human Services, April 2002.
- Title 25, Texas Administrative Code, Chapter 289 (Radiation Control).
- Memorandum of Understanding between the Texas Department of Public Safety and the Texas Higher Education Coordinating Board (Texas Controlled Substances Act).
- House Bill 1831 (Relating to Disaster Preparedness and Emergency Management, 81st Legislature, Regular Session).

## Project Information

Audit fieldwork was conducted from May 2009 through June 2009. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The following members of the State Auditor's staff performed the audit:

- Brianna Lehman (Project Manager)
- Sajil Scaria, CFE (Assistant Project Manager)
- Matt Byrnes
- Becki Franklin
- Dana Musgrave, MBA (Quality Control Reviewer)
- Sandra Vice, CIA, CGAP, CISA (Assistant State Auditor)

## Background Information about the Nine Texas Health-related Institutions and Their Research Laboratories

Table 10 lists the fall 2008 enrollment, total number of full-time equivalent employees during the first quarter of fiscal year 2009, and total research expenditures for fiscal year 2008 at the nine Texas health-related institutions (institutions) (the most current year available from the Higher Education Coordinating Board).

Table 10

Research Expenditure Totals and Enrollment and Employment Information for the State's Nine Health-related Institutions						
Institution	Date Established	Location of Main Campus	Number of Campuses	Total Enrollment in Fall 2008 (Fiscal Year 2009)	Full-time Equivalent Employees in First Quarter of Fiscal Year 2009	Total Research Expenditures in Fiscal Year 2008
Texas A&M Health Science Center	1999 <sup>a</sup>	College Station <sup>b</sup>	5	1,695	1,443.57	\$ 41,197,205
Texas Tech University Health Sciences Center	1969 <sup>c</sup>	Lubbock	7	2,904	5,052.18	\$ 19,656,542
The University of Texas Health Science Center at Houston	1972	Houston	1	3,865	4,597.71	\$ 160,907,707
The University of Texas Health Science Center at San Antonio	1959	San Antonio	4	3,060	5,146.38	\$ 149,939,552
The University of Texas Health Science Center at Tyler	1947 <sup>d</sup>	Tyler	1	Not Applicable	814.74	\$ 11,683,253
The University of Texas M.D. Anderson Cancer Center	1941	Houston	1	203	17,387.15	\$ 414,772,469
The University of Texas Medical Branch at Galveston	1891	Galveston	1	2,338	12,424.37	\$ 115,261,712
The University of Texas Southwestern Medical Center at Dallas	1943 <sup>e</sup>	Dallas	1	2,415	10,050.38	\$ 296,582,734
University of North Texas Health Science Center at Fort Worth	1970 <sup>f</sup>	Fort Worth	1	1,212	1,260.22	\$ 24,939,145

<sup>a</sup> The Texas A&M University System Board of Regents formally approved establishment of the Texas A&M University System's health-related entities in September 1997. Texas A&M Health Science Center officially began operation on September 1, 1999.

<sup>b</sup> Texas A&M Health Science Center does not have a main campus, but its administrative offices are located in College Station.

<sup>c</sup> This is the date that the Texas Tech University School of Medicine was established.

<sup>d</sup> The health science center in Tyler was established in 1947; it joined the University of Texas System in 1977.

<sup>e</sup> The medical center was established in 1943; it joined the University of Texas System in 1949.

<sup>f</sup> This is the date that the Texas College of Osteopathic Medicine accepted its first students. Its name was changed to the University of North Texas Health Science Center at Fort Worth in 1993, and it became part of the University of North Texas System in 1999.

Sources: The institutions' Web sites; the Higher Education Coordinating Board's Higher Education Accountability System (<http://www.txhighereddata.org/Interactive/Accountability/>) and *Sources and Uses of Funds for Universities, Health-Related Institutions, Lamar State Colleges and Texas State Technical Colleges for Fiscal Year 2008*; and the State Auditor's Office Full-time Equivalent Employee System.

Table 11 lists the total number of research laboratory rooms reported by each of the nine Texas health-related institutions.

Table 11

Total Number of Research Laboratory Rooms Reported by Each of the State's Nine Health-related Institutions		
Institution	Number of Research Laboratory Rooms <sup>a</sup>	Percent of Total Research Laboratory Rooms
Texas A&M Health Science Center	586	6.3%
Texas Tech University Health Sciences Center	328	3.6%
The University of Texas Health Science Center at Houston	1,210	13.1%
The University of Texas Health Science Center at San Antonio	1,153	12.5%
The University of Texas Health Science Center at Tyler	41	0.4%
The University of Texas M.D. Anderson Cancer Center	2,666	28.8%
The University of Texas Medical Branch at Galveston	281	3.0%
The University of Texas Southwestern Medical Center at Dallas	2,789	30.2%
University of North Texas Health Science Center	197	2.1%
<b>Totals</b>	<b>9,251</b>	<b>100.0%</b>

<sup>a</sup> This is the total number of laboratory rooms in which research is being conducted at the institutions. This does not include classroom, hospital, or clinical laboratories at the institutions.

Source: Self-reported data by the nine health-related institutions.

Table 12 lists the cities in which the institutions' research laboratories are located.

Table 12

Cities in Which Institutions' Research Laboratories Are Located	
City	Total Number of Research Laboratories
Abilene	4
Amarillo	73
Bastrop	399
Brownsville	4
College Station	207
Dallas	2,895
El Paso	25
Edinburg	22
Fort Worth	197
Galveston	279
Houston	3,456

Cities in Which Institutions' Research Laboratories Are Located	
City	Total Number of Research Laboratories
Kingsville	23
League City	1
Lubbock	224
McAllen	4
Odessa	2
San Antonio	1,131
Smithville	177
Temple	86
Texas City	1
Tyler	41
<b>Total</b>	<b>9,251</b>

Source: Self-reported data by the nine health-related institutions.

Auditors created six broad categories for the types of research activities conducted in the research laboratories at the institutions. Table 13 lists the total number of research laboratories by type of research activity reported by the institutions. Most research laboratories conduct multiple types of research activities.

Table 13

Total Number of Research Laboratories by Type of Research Activity Reported by the State's Nine Health-related Institutions <sup>a</sup>		
Types of Research Activities	Total Research Laboratories <sup>b</sup>	Percent of Total
Human Subject	73	0.4%
Animal	1,305	7.9%
Radioactive Materials	1,489	9.0%
Microbiology	3,146	19.0%
Biosafety	5,172	31.1%
Hazardous Chemical	5,410	32.6%
<b>Totals</b>	<b>16,595</b>	<b>100.0%</b>
<sup>a</sup> Most research laboratories conduct multiple types of research activities within one laboratory room. <sup>b</sup> For Southwestern, the totals in this table are based on its original self-reported total number of research laboratories of 914. Southwestern has an additional 1,875 shared research laboratory rooms for which Southwestern did not provide the breakdown of research activities.		

Source: Self-reported data by the nine health-related institutions.

Table 14 lists the total number of research laboratories by type of research activity at each of the institutions. Most research laboratories conduct multiple types of research activities within each laboratory room.

Table 14

Total Number of Research Laboratories by Type of Research Activities Reported by the State's Nine Health-related Institutions							
Institution	Human Subject	Animal Subject	Microbiology	Hazardous Chemical	Radioactive Material	Biosafety	Total Research Activities
Texas A&M Health Science Center	2	73	306	427	75	278	1,161
Texas Tech University Health Sciences Center	0	30	53	318	54	253	708
The University of Texas Health Science Center at Houston	0	0	330	1,104	189	330	1,953
The University of Texas Health Science Center at San Antonio	0	272	20	750	216	774	2,032
The University of Texas Health Science Center at Tyler	0	0	36	1	2	34	73
The University of Texas M.D. Anderson Cancer Center	0	605	1,621	1,913	349	2,662	7,150
The University of Texas Medical Branch at Galveston	13	133	267	272	97	281	1,063
The University of Texas Southwestern Medical Center at Dallas <sup>a</sup>	9	171	500	529	472	525	2,206
University of North Texas Health Science Center	49	21	13	96	35	35	249
<b>Totals</b>	<b>73</b>	<b>1,305</b>	<b>3,146</b>	<b>5,410</b>	<b>1,489</b>	<b>5,172</b>	<b>16,595</b>

<sup>a</sup> For Southwestern, the totals in this table are based on its original self-reported total number of research laboratories of 914. Southwestern has an additional 1,875 shared research laboratory rooms for which Southwestern did not provide the breakdown of research activities.

Source: Self-reported data by the nine health-related institutions.

## Summary of Results of Auditors' Review of Emergency Management Plans at Nine Texas Health-related Institutions

Table 15 lists the results of auditors' comparison of emergency management plans of the State's nine health-related institutions (institutions) against the Governor's Division of Emergency Management's local government plan checklist. Although the institutions are not specifically required to follow this checklist, many of these attributes are applicable to emergency management at institutions. To determine whether the institutions' emergency management plans contained the recommended items, auditors evaluated each plan based on the 11 categories and 29 attributes listed in Table 15.

Table 15

Summary of Results of Auditors' Review of Emergency Management Plans at Nine Texas Health-related Institutions				
Category	Attribute	Description	Number and Percent of Institutions Whose Plans Included This Attribute	Number and Percent of Institutions Whose Plans Did Not Include This Attribute
Plan Approval and Implementation	1	Plan includes an approval and implementation page that is signed by the president of the university.	6 (66.7%)	3 (33.3%)
	2	Plan includes a record of changes.	6 (66.7%)	3 (33.3%)
Authority	3	Plan identifies any local, state, or federal legal authorities that establish the legal basis for planning and emergency response. These should specify the extent and limits of emergency operations and emergency authorities.	6 (66.7%)	3 (33.3%)
Explanation of Terms	4	Plan explains/defines terms, acronyms, and any abbreviations used throughout the document (usually in a glossary). To be fully compliant with this standard, the plan must consistently use National Incident Management System (NIMS) definitions and acronyms as they apply throughout the plan.	7 (77.8%)	2 (22.2%)
Situation and Assumptions	5	Plan includes a situation statement that summarizes the potential hazards facing the jurisdiction (risk/hazard assessment).	7 (77.8%)	2 (22.2%)
	6	Plan includes the likelihood of occurrence for identified hazards.	4 (44.4%)	5 (55.6%)
	7	Plan includes identified hazards' estimated impact on public health, safety, and property.	2 (22.2%)	7 (77.8%)
	8	Plan includes a list of planning assumptions on which the plan and annexes are based.	7 (77.8%)	2 (22.2%)

Summary of Results of Auditors' Review of Emergency Management Plans at Nine Texas Health-related Institutions

Category	Attribute	Description	Number and Percent of Institutions Whose Plans Included This Attribute	Number and Percent of Institutions Whose Plans Did Not Include This Attribute
Concept of Operations	9	Plan describes the incident command arrangements and the interface between field operations and an emergency operations center. Plan describes how the institution is to set up and use an emergency operations center or a multi-agency coordination system depending on the size and complexity of the incident.	7 (77.8%)	2 (22.2%)
	10	Plan outlines the process to be used to obtain state and/or federal assistance, including who will make the request and under what circumstances requests will be made for additional aid from the State.	8 (88.9%)	1 (11.1%)
	11	Plan describes the actions to be taken during the four phases of emergency management (preparedness, mitigation, response, and recovery). Plan captures the sequence and scope of the planned response and explains the overall approach to the emergency situation.	8 (88.9%)	1 (11.1%)
Organization and Assignment Responsibility	12	Plan describes the emergency organization and the assignment of responsibilities.	9 (100.0%)	0 (0.0%)
	13	Plan describes the emergency responsibilities of the institution's president and the other members of the executive staff.	7 (77.8%)	2 (22.2%)
	14	Plan outlines the responsibilities for various emergency service and support functions, including an organizational structure that clearly identifies what organizations will be involved in the emergency response.	7 (77.8%)	2 (22.2%)
Direction and Control	15	Plan indicates by title/position who is responsible for providing guidance for the emergency management program. The plan describes the organization and assignment of responsibilities, highlighting the primary and supporting roles in the process.	7 (77.8%)	2 (22.2%)
	16	Plan indicates by title/position the person(s) responsible for directing and controlling response and recovery activities.	9 (100.0%)	0 (0.0%)
	17	Plan describes the local emergency facilities (for example, incident command post and emergency operation center).	7 (77.8%)	2 (22.2%)
	18	Plan summarizes the line of succession for key personnel and describes the organization and assignment of responsibilities.	6 (66.7%)	3 (33.3%)

Summary of Results of Auditors' Review of Emergency Management Plans at Nine Texas Health-related Institutions				
Category	Attribute	Description	Number and Percent of Institutions Whose Plans Included This Attribute	Number and Percent of Institutions Whose Plans Did Not Include This Attribute
Readiness Level	19	Plan explains the readiness (threat) levels on campus and the actions to be taken at the different levels.	7 (77.8%)	2 (22.2%)
	20	Plan indicates who determines the different readiness levels.	6 (66.7%)	3 (33.3%)
Administration and Support	21	Plan outlines policies on agreements and contracts (for example, mutual aid agreements). Plan contains general policies for managing resources.	6 (66.7%)	3 (33.3%)
	22	Plan establishes requirements for reports that are required during emergency operations.	4 (44.4%)	5 (55.6%)
	23	Plan outlines the requirements for record keeping related to emergencies and includes general policies on financial record keeping.	4 (44.4%)	5 (55.6%)
	24	Plan describes policies and/or assigns responsibility for ensuring personnel receive the appropriate training to implement the plan during an emergency.	6 (66.7%)	3 (33.3%)
	25	Plan establishes requirements for a post-incident review of emergency operations following a major emergency/disaster.	8 (88.9%)	1 (11.1%)
Development and Maintenance	26	Plan identifies who is responsible for approving and promulgating the plan. This should include a section describing the participants included in the planning process, as well as those who give the final approval.	6 (66.7%)	3 (33.3%)
	27	Plan indicates how it is to be distributed, including a list of individuals and organizations that should receive a copy.	5 (55.6%)	4 (44.4%)
	28	Plan outlines the process and schedule for the review and update of the plan and its annexes. Plan should provide for annual review of the plan.	9 (100.0%)	0 (0.0%)
NIMS	29	Plan includes a statement acknowledging the adoption of NIMS standards and cites appropriate authorities and references.	5 (55.6%)	4 (44.4%)

Source: Auditors' review of emergency management plans at the State's nine health-related institutions.

## Survey Results

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Auditors surveyed Texas’s nine health-related institutions (institutions). The response rate was 100 percent. The survey included questions on the institutions’ (1) emergency preparedness, (2) mental health and behavioral concerns, (3) campus law enforcement, (4) mitigation activities, (5) and research laboratory safety. Table 16 lists the surveyed institutions.

Table 16

Health-related Institutions Responding to Auditors’ Survey	
▪ Texas A&M System Health Science Center	▪ The University of Texas M.D. Anderson Cancer Center
▪ Texas Tech University Health Sciences Center	▪ The University of Texas Medical Branch at Galveston
▪ The University of Texas Health Science Center at Houston	▪ The University of Texas Southwestern Medical Center at Dallas
▪ The University of Texas Health Science Center at San Antonio	▪ University of North Texas Health Science Center at Fort Worth
▪ The University of Texas Health Science Center at Tyler	

## Emergency Preparedness

Tables 17 through 19 list the responses to survey questions regarding emergency preparedness. For purposes of grouping similar topics, the survey results below do not appear in the same order as the survey questions.

Table 17

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Emergency Preparedness				
Survey Question	Yes		No	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
1. Does the institution's emergency operations plan incorporate National Incident Management System (NIMS) standards?	7	77.8%	2	22.2%
2. Has your institution's executive management delegated authority for command and control functions during emergencies? <sup>a</sup>	7	77.8%	2	22.2%
4. Did your institution use any of the following planning and training resources when developing its emergency operations plan?				
Emergency Management Institute	3	33.3%	6	66.7%
U.S. Fire Administration-National Fire Academy	2	22.2%	7	77.8%
National Fire Protection Agency	4	44.4%	5	55.6%
Federal Emergency Management Agency Guide	7	77.8%	2	22.2%
Governor's Division of Emergency Management	5	55.6%	4	44.4%
Law Enforcement Management Institute of Texas	1	11.1%	8	88.9%
Texas Engineering Extension Service	4	44.4%	5	55.6%
Texas School Safety Center	0	0.0%	9	100.0%
Other	4	44.4%	5	55.6%
8. Does your institution have an existing multidisciplinary crisis management team?	7	77.8%	2	22.2%
11. Does your institution develop corrective action plans after exercises of its emergency management plan and incorporate the results into the plan??	8	88.9%	1	11.1%
12. Does your institution develop corrective action plans after actual emergencies and incorporate the results into the emergency management plan?	9	100%	0	0%
17. Is it mandatory for students, faculty, staff, and patients to routinely update emergency contact information at your institution?	1	11.1%	8	88.9%
<sup>a</sup> Institutions were also asked to provide the title of the individuals to whom this authority is delegated.				

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 18

Responses from Nine Health-related Institutions to 2009 State Auditor’s Office Survey about Emergency Preparedness <sup>a</sup>		
3a. Do the following individuals receive NIMS emergency preparedness training? (Check all that apply) <sup>b</sup>		
Response	Number of Institutions	Percent of Institutions
Campus Law Enforcement	7	77.8%
Key Administrative Staff	4	44.4%
Key Financial Staff	3	33.3%
First Responders	4	44.4%
Public Information Officer	4	44.4%
Lab Personnel	0	0.0%
Hospital Personnel	3	33.3%
Individuals Identified in Question 2	5	55.6%
3b. Do the following individuals receive NIMS emergency preparedness training IS100-HC or IS 200HC? (Check all that apply) <sup>b</sup>		
Response	Number of Institutions	Percent of Institutions
Campus Law Enforcement	2	22.2%
Key Administrative Staff	2	22.2%
Key Financial Staff	1	11.1%
First Responders	0	0.0%
Public Information Officer	1	11.1%
Lab Personnel	0	0.0%
Hospital Personnel	2	22.2%
Individuals Identified in Question 2	1	11.1%
5. Who is responsible for reviewing and revising the institution’s emergency management plan? <sup>c</sup>		
Response	Number of Institutions	Percent of Institutions
Environmental Health and Safety/Risk Management	5	55.6%
Police Department	3	33.3%
Emergency Management Personnel	4	44.4%
Facilities	1	11.1%
University Administration	4	44.4%
6. How often is your institution’s emergency management plan reviewed (and updated if necessary)?		
Response	Number of Institutions	Percent of Institutions
More than once per year	7	77.8%
Once per year	2	22.2%
Less than once per year	0	0.0%
Has not been updated	0	0.0%

**Responses from Nine Health-related Institutions to  
2009 State Auditor's Office Survey about Emergency Preparedness<sup>a</sup>**

**7. What methods are used to communicate your institution's emergency management plan to students/faculty/staff/patients? (Check all that apply)**

Response	Number of Institutions	Percent of Institutions
Orientation Session	7	77.8%
Employee Manual	3	33.3%
Student Manual	2	22.2%
Web Site	8	88.9%
Training Class	6	66.7%
Faculty/Staff Meetings	6	66.7%

**9. As part of its emergency planning, how often does your institution conduct a campus-specific risk assessment to identify potential hazards?**

Response	Number of Institutions	Percent of Institutions
More than once per year	1	11.1%
Once per year	6	66.7%
Less than once per year	1	11.1%
Have not conducted risk assessment	0	0.0%
Did not answer	1	11.1%

**13. What methods does your institution use to transmit safety warnings/emergency information to students/faculty/staff/patients? (Check all that apply)**

Response	Number of Institutions	Percent of Institutions
Public Address System	2	22.2%
E-mail	9	100.0%
Web Site	9	100.0%
Reverse 911	2	22.2%
Text Messaging	5	55.6%
Sirens	2	22.2%
Fire Panel Boxes	5	55.6%
Flat Panel Monitors	2	22.2%
Radios	5	55.6%
Broadcast Message to Social Network Accounts	1	11.1%
Broadcast Message to Instant Messaging Account	1	11.1%

**14. How does your institution inform students/faculty/staff/patients about these emergency communication systems? (Check all that apply)**

Response	Number of Institutions	Percent of Institutions
Employee Manual	4	44.4%
Student Manual	2	22.2%
Faculty/Staff Meeting	7	77.8%

**Responses from Nine Health-related Institutions to  
2009 State Auditor's Office Survey about Emergency Preparedness<sup>a</sup>**

Response	Number of Institutions	Percent of Institutions
Training Class	7	77.8%
Electronic Notification	7	77.8%
Web Site	9	100.0%
Brochure	1	11.1%
Posters	1	11.1%
Newspaper	3	33.3%
Orientation	8	88.9%

**15. How often does your institution update its contact list of key individuals involved in emergency responses?**

Response	Number of Institutions	Percent of Institutions
More than once per year	8	88.9%
Once per year	1	11.1%
Less than once per year	0	0.0%
Have not been updated	0	0.0%

**16. How often does your institution update emergency contact information for the following members of the institution community?**

Response	Number of Institutions	Percent of Institutions
<b>Students</b>		
More than once per year	4	44.4%
Once per year	2	22.2%
Less than once per year	0	0.0%
Have not been updated	1	11.1%
Did not answer	2	22.2%
<b>Faculty</b>		
More than once per year	6	66.7%
Once per year	2	22.2%
Less than once per year	0	0.0%
Have not been updated	0	0.0%
Did not answer	1	11.1%
<b>Staff</b>		
More than once per year	6	66.7%
Once per year	2	22.2%
Less than once per year	0	0.0%
Have not been updated	0	0.0%
Did not answer	1	11.1%

<sup>a</sup> Percentages may not sum to 100.0 due to rounding.

<sup>b</sup> Institutions were asked to select the type of NIMS training; auditors categorized the responses for Question 3 into two sub-questions.

**Responses from Nine Health-related Institutions to  
2009 State Auditor's Office Survey about Emergency Preparedness<sup>a</sup>**

<sup>c</sup> Institutions were asked to provide the titles of the individuals; auditors categorized the responses. Some institutions provided multiple names or departments.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 19

<b>Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Emergency Preparedness<sup>a</sup></b>		
<b>10. How many of the following exercises of its emergency operations plan has the institution conducted since September 1, 2006, not including actual emergencies?<sup>b</sup></b>		
Response	Number of Institutions	Percent of Institutions
<b>Tabletop Exercise</b>		
Zero or No response	2	22.2%
One Exercise	0	0.0%
Two Exercises	3	33.3%
Three Exercises	1	11.1%
Four or More Exercises	3	33.3%
<b>Functional Exercise</b>		
Zero or No response	4	44.4%
One Exercise	1	11.1%
Two Exercises	1	11.1%
Three Exercises	1	11.1%
Four or More Exercises	2	22.2%
<b>Full-scale Exercise</b>		
Zero or No response	5	55.6%
One Exercise	1	11.1%
Two Exercises	1	11.1%
Three Exercises	0	0.0%
Four or More Exercises	2	22.2%
<sup>a</sup> Percentages may not sum exactly to 100 due to rounding.		
<sup>b</sup> Auditors asked institutions for additional information about the frequency of and participants in these exercises.		

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

## Mental Health and Behavioral Concerns

Tables 20 through 22 list the responses to survey questions related to mental health and behavioral concerns. For this section, institutions were asked to provide their current counseling-to-student ratio for each campus (see Table 20). For purposes of grouping similar topics, the survey results below do not appear in the same order as the survey questions.

Table 20

Ratio of Counselors to Students at the Nine Health-related Institutions As of April 2009					
No Counselors	One Counselor per fewer than 1,000 students	One Counselor Per 1,000 Students to 1,500 Students	One Counselor Per 1,500 Students to 2,000 Students	One Counselor per 2,000 or more Students	Does Not Apply or Institution Did Not Answer <sup>b</sup>
<ul style="list-style-type: none"> <li>▪ University of North Texas Health Science Center at Fort Worth</li> </ul>	<ul style="list-style-type: none"> <li>▪ The University of Texas Health Science Center at San Antonio</li> </ul>	<ul style="list-style-type: none"> <li>▪ The University of Texas Southwestern Medical Center at Dallas</li> </ul>	<ul style="list-style-type: none"> <li>▪ The University of Texas Health Science Center at Houston</li> <li>▪ Texas A&amp;M Health Science Center (College Station, Houston, Temple, Round Rock)<sup>a</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ The University of Texas Medical Branch at Galveston</li> <li>▪ Texas Tech University Health Sciences Center</li> </ul>	<ul style="list-style-type: none"> <li>▪ The University of Texas Health Science Center at Tyler</li> <li>▪ The University of Texas M.D. Anderson Cancer Center</li> </ul>
<p><sup>a</sup> Texas A&amp;M Health Science Center also reported 1 counselor for 125 students at its Dallas location, and 1 counselor for 118 students at its Kingsville location.</p> <p><sup>b</sup> The University of Texas Health Science Center at Tyler does not have students. The University of Texas M.D. Anderson Cancer Center did not answer the question.</p>					

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 21

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mental Health and Behavioral Concerns <sup>a</sup>						
Survey Question	Yes		No		Question Not Applicable to Institution	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
1. Do the following individuals at the institution receive training that covers mental health issues:						
Office of Student Affairs or Student Services	5	55.6%	1	11.1%	3	33.3%
Counselors	7	77.8%	0	0.0%	2	22.2%
Student Health Staff	6	66.7%	1	11.1%	2	22.2%

**Responses from Nine Health-related Institutions to  
2009 State Auditor's Office Survey about Mental Health and Behavioral Concerns<sup>a</sup>**

Survey Question	Yes		No		Question Not Applicable to Institution	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
Campus Law Enforcement	7	77.8%	1	11.1%	1	11.1%
Faculty	3	33.3%	5	55.6%	1	11.1%
Staff	3	33.3%	5	55.6%	1	11.1%
General Student Population	3	33.3%	4	44.4%	2	22.2%
Hospital Personnel	2	22.2%	2	22.2%	5	55.6%
3. Does the institution currently provide information to the following individuals on how to identify individuals that may be at risk of harming themselves or others:						
Students	4	44.4%	3	33.3%	2	22.2%
Faculty	5	55.6%	3	33.3%	1	11.1%
Staff	5	55.6%	3	33.3%	1	11.1%
4. Does the institution have a process in place that allows the following individuals to report at risk individuals and/or suspicious activities: <sup>b</sup>						
Students	5	55.6%	2	22.2%	2	22.2%
Faculty	8	88.9%	1	11.1%	0	0.0%
Staff	8	88.9%	1	11.1%	0	0.0%
5. Does the institution currently have in place a multidisciplinary team to discuss troubled students and to respond to these students as needed?						
	4	44.4%	5	55.6%	0	0.0%

<sup>a</sup> Percentages may not sum exactly to 100.0 due to rounding.

<sup>b</sup> If yes, survey asked institutions to describe the process.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 22

Responses from Nine Health-related Institutions to 2009 State Auditor’s Office Survey about Mental Health and Behavioral Concerns			
4b. How does the institution inform these individuals about the process to report at-risk individuals and/or suspicious activities? (Check all that apply) <sup>a</sup>			
Type of Communication Method	Number and Percent of Institutions Using Method to Inform Students	Number and Percent of Institutions Using Method to Inform Faculty	Number and Percent of Institutions Using Method to Inform Staff
Orientation	4 (66.7%)	5(62.5%)	5(62.5%)
Training Class	2(33.3%)	4(50.0%)	4(50.0%)
Meetings	2(33.3%)	4(50.0%)	3(37.5%)
Brochure	5(83.3%)	3(37.5%)	3(37.5%)
Web Site	6(100.0%)	6(75.0%)	6(75.0%)
Electronic Notification	4(66.7%)	3(37.5%)	3(37.5%)
Posters	1(16.7%)	2(25.0%)	2(25.0%)
Newspapers	1(16.7%)	1(12.5%)	1(12.5%)
Not Applicable or Not Answered	3(33.3%)	1(11.1%)	1(11.1%)
<sup>a</sup> Percentages are out of the total number of institutions that responded to the question.			

Source: Self-reported by the nine health-related institutions in the State Auditor’s Office 2009 survey.

### Campus Law Enforcement

Tables 23 through 25 list responses to survey questions related to campus law enforcement. For purposes of grouping similar topics, the survey results below do not appear in the same order as the survey questions.

Table 23

Responses from Nine Health-related Institutions to 2009 State Auditor’s Office Survey about Campus Law Enforcement <sup>a</sup>		
1. Which of the following best describes the primary law enforcement personnel at your institution?		
Response	Number of Institutions	Percent of Institutions
We do not use law enforcement personnel.	0	0.0%
We have our own law enforcement personnel.	7	77.8%
We use the institution system’s law enforcement.	2	22.2%
We contract with a third party for law enforcement.	0	0.0%
We have other arrangements for law enforcement.	0	0.0%

**Responses from Nine Health-related Institutions to  
2009 State Auditor's Office Survey about Campus Law Enforcement <sup>a</sup>**

**2a. Number of full-time employees within the institution's law enforcement entity.**

Response	Number of Institutions	Percent of Institutions
Fewer than 50	2	22.2%
Between 50 and 99	3	33.3%
100 or more	3	33.3%
Varies by Location	1	11.1%

**2b. Number of full-time sworn peace officers within the institution's law enforcement division. <sup>b</sup>**

Response	Number of Institutions	Percent of Institutions
Fewer than 25	3	33.3%
Between 25 and 49	2	22.2%
50 or more	3	33.3%
Varies by Location	1	11.1%

**4. Excluding NIMS training, what type of emergency management training is currently provided to the institution's campus law enforcement personnel beyond their required state certification and required mandatory training?**

Response	Number of Institutions	Percent of Institutions
Active Shooter	9	100.0%
Biohazard (Please Specify) <sup>c</sup>	5	55.6%
Other (Please Specify) <sup>d</sup>	5	55.6%

<sup>a</sup> Percentages may not sum exactly to 100.0 due to rounding.

<sup>b</sup> Institutions provided the number of full-time employees and sworn peace officers. Auditors categorized responses.

<sup>c</sup> Responses included Blood Borne Pathogens, Select Agent, Weapons of Mass Destruction Gas Mask/Chemical Suite, and Texas Engineering Extension Services (TEEK) Online Training.

<sup>d</sup> Responses included Terrorism Awareness, Hazard Communications, Lab Safety Awareness, Tactical Problems, and Crisis Incident Stress.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 24

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Campus Law Enforcement						
Survey Question	Yes		No		Question Not Applicable to Institutions	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
5. Does the institution use law enforcement personnel (campus, local, state, or federal) for undercover operations on its campus?	4	44.4%	5	55.6%	0	0.0%
6. Is the institution's campus law enforcement entity accredited by:						
Commission on Accreditation for Law Enforcement Agencies (CALEA)	2	22.2%	7	77.8%	0	0.0%
International Association of Campus Law Enforcement Administrators (IACLEA)	3	33.3%	6	66.7%	0	0.0%
Other (Texas Police Chiefs Association)	3	33.3%	0	0.0%	0	0.0%

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 25

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Campus Law Enforcement		
3. Which of the following devices are the institution's campus law enforcement personnel authorized to carry? (Check all that apply)		
Device	Number of Institutions Whose Law Enforcement Personnel Are Authorized to Carry Device	Percent of Institutions Whose Law Enforcement Personnel Are Authorized to Carry Device
Handguns	8	88.9%
Rifles/Long Guns	5	55.6%
Tasers or Stun Guns	5	55.6%
Batons	7	77.8%
Pepper Spray	8	88.9%
Other (Shotguns)	2	22.2%
Did Not Answer	1	11.1%

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

## Mitigation Activities

Tables 26 through 30 list the responses to survey questions related to mitigation activities. For purposes of grouping similar topics, the survey results below do not appear in the same order as the survey questions.

Table 26

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities <sup>a</sup>		
1. How often does the institution conduct physical security assessments on campus, such as an evaluation of site and building safety?		
Response	Number of Institutions	Percent of Institutions
More than once per year	7	77.8%
Once per year	1	11.1%
Less than once per year	1	11.1%
Have never conducted	0	0.0%
2. When was the most recent physical security assessment on campus conducted? <sup>b</sup>		
Response	Number of Institutions	Percent of Institutions
Conducted in 2009	2	22.2%
Conducted in 2008	2	22.2%
Conducted in 2006	1	11.1%
Conduct routine inspections (no date provided)	3	33.3%
Did not answer	1	11.1%
<sup>a</sup> Percentages may not sum exactly to 100.0 due to rounding.		
<sup>b</sup> Auditors grouped responses into these general categories.		

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 27

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities	
3. Does the institution conduct safety walks around campus to identify potential hazards?	
Yes	No
9 (100.0%)	0 (0.0%)

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 28

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities						
4. Which of the following physical security features have been implemented at the following locations on campus? <sup>a</sup>						
Physical Security Feature	Administration Building		Classroom Building		Campus Housing	
	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature
Emergency Call Boxes	4	44.4%	3	42.9%	1	50.0%
Security Cameras	9	100.0%	7	100.0%	1	50.0%
Fire Alarms	9	100.0%	7	100.0%	2	100.0%
Card Access on Doors	9	100.0%	6	85.7%	0	0.0%
Timed Door Locks	6	66.7%	4	57.1%	0	0.0%
Sprinkler Systems	9	100.0%	7	100.0%	0	0.0%
Safety Escort Service	7	77.8%	5	71.4%	2	100.0%
Panic Buttons	7	77.8%	4	57.1%	1	50.0%
Security Guard	8	88.9%	6	85.7%	2	100.0%
Visitor Screening	5	55.6%	3	42.2%	1	50.0%
Not Applicable	0	0.0%	2	22.2%	7	77.8%

<sup>a</sup> Institutions could select all that applied. Percentages are based on the number of institutions that have these facilities.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 29

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities						
4. Which of the following physical security features have been implemented at the following locations on campus? <sup>a</sup>						
Physical Security Feature	Parking Facility		Campus Grounds		Hospital	
	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature
Emergency Call Boxes	7	77.8%	6	75.0%	2	40.0%
Security Cameras	8	88.9%	6	75.0%	5	100.0%
Fire Alarms	3	33.3%	1	12.5%	5	100.0%
Card Access on Doors	4	44.4%	1	12.5%	5	100.0%
Timed Door Locks	0	0.0%	0	0.0%	3	60.0%
Sprinkler Systems	3	33.3%	0	0.0%	5	100.0%
Safety Escort Service	7	77.8%	7	87.5%	5	100.0%

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities

4. Which of the following physical security features have been implemented at the following locations on campus? <sup>a</sup>

Physical Security Feature	Parking Facility		Campus Grounds		Hospital	
	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature	Number of Institutions Implementing Feature	Percent of Institutions Implementing Feature
Panic Buttons	1	11.1%	0	0.0%	5	100.0%
Security Guard	8	88.9%	7	87.5%	5	100.0%
Visitor Screening	4	44.4%	1	12.5%	4	80.0%
Not Applicable	0	0%	1	11.1%	4	44.4%

<sup>a</sup> Institutions could select all that applied. Percentages are based on the number of institutions that have these facilities.

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 30

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities		
5. Does the Institution have education and/or prevention programs for students in the following subject areas? (Check all that apply) <sup>a</sup>		
Type of Education Program	Number of Institutions Offering Program	Percent of Institutions Offering Program
Drug Education	6	85.7%
Alcohol Education	5	71.4%
Rape	7	100.0%
Domestic/Dating Violence	7	100.0%
Harassment	6	85.7%
Theft	6	85.7%
Self-defense Training	5	71.4%
Community Emergency Response Team (CERT)	2	28.6%
Mental Illness	5	71.4%
Suicide	5	71.4%
Bullying	2	28.6%
Depression	4	57.1%
Cyber Crime	7	100.0%
Hazing	4	57.1%
Community Policing	3	42.9%
Other (Disaster Medicine and Rape Aggression Defense Training)	2	28.6%

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Mitigation Activities		
5. Does the Institution have education and/or prevention programs for students in the following subject areas? (Check all that apply) <sup>a</sup>		
Type of Education Program	Number of Institutions Offering Program	Percent of Institutions Offering Program
<sup>a</sup> Two institutions responded that they do not have students. One of the institutions does not have students. The second institution does not have undergraduate students, but it does have graduate students. The percentages were calculated based on the seven institutions that responded to the question.		

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009.

## Research Laboratory Safety

Tables 31 through 33 list the responses to survey questions related to research laboratory safety. For purposes of grouping similar topics, the survey results below do not appear in the same order as the survey questions.

Table 31

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Research Laboratory Safety				
Survey Question	Yes		No	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
1. Does the institution have written procedures in place to report incidents (e.g., chemical spills, infections, and needle pricks) occurring in labs?	9	100.0%	0	0.0%
2. Has the institution established written emergency procedures to securely store items such as chemicals, viruses, and equipment during catastrophic events (e.g., hurricanes, tornadoes, and floods)?	8	88.9%	1	11.1%
3. Has the institution established written emergency procedures to evacuate laboratory animals if necessary?	8	88.9%	1	11.1%
4. Does the institution have written policies and procedures for transferring hazardous materials to and from other laboratories?	9	100.0%	0	0.0%
6a. Does the institution have written policies and procedures for routinely inspecting and maintaining the physical infrastructure and equipment of laboratories?	7	77.8%	2	22.2%
7a. Does the institution have a backup power system at its laboratories?	9	100.0%	0	0.0%
7b. Does the institution have written policies and procedures for testing backup power systems at its laboratories?	9	100.0%	0	0.0%
8. Does the institution have written policies and procedures for conducting inventory on laboratory equipment?	9	100.0%	0	0.0%

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Research Laboratory Safety				
Survey Question	Yes		No	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
9a. Do the laboratories maintain a current list of chemicals and viruses that are highly reactive or easily spread?	9	100.0%	0	0.0%

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 32

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Research Laboratory Safety		
5. Which of the physical security features listed below have been implemented at the laboratories on campus? (Check all that apply)		
Response	Number of Institutions	Percent of Institutions
Emergency Call Boxes	4	44.4%
Security Cameras	8	88.9%
Fire Alarms	9	100.0%
Card Access on Doors	9	100.0%
Timed Door Locks	5	55.6%
Sprinkler Systems	8	88.9%
Safety Escort Service	7	77.8%
Panic Button	5	55.6%
Security Guards	7	77.8%
Visitor Screening	7	77.8%
6b. How often are inspections of the institutions' laboratories conducted?		
Response	Number of Institutions	Percent of Institutions
More than once per year	6	66.7%
Once per year	0	0.0%
Less than once per year	2	22.2%
Have not conducted inspection	0	0.0%
Did not answer	1	11.1%
7c. How often are backup power systems at the institutions' laboratories tested?		
Response	Number of Institutions	Percent of Institutions
More than once per year	8	88.9%
Once per year	1	11.1%
Less than once per year	0	0.0%
Have not been tested	0	0.0%

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Research Laboratory Safety		
9b. How often are the lists of chemicals and viruses that are highly reactive or easily spread updated?		
Response	Number of Institutions	Percent of Institutions
More than once per year	6	66.7%
Once per year	1	11.1%
Less than once per year	2	22.2%
Have not been updated	0	0.0%
11. What safety and emergency training is provided to laboratory personnel? <sup>a</sup>		
Response	Number of Institutions	Percent of Institutions
General Lab Safety	8	88.9%
Hazardous Communications	4	44.4%
Emergency Training	3	33.3%
Radiation Safety	7	77.8%
Biosafety	7	77.8%
<sup>a</sup> These were open-ended responses. Auditors categorized responses into these topics. A lack of response does not necessarily mean the institution does not provide that training or have it available.		

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

Table 33

Responses from Nine Health-related Institutions to 2009 State Auditor's Office Survey about Research Laboratory Safety						
Survey Question	Yes		No		Question Not Applicable to Institution	
	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions	Number of Institutions	Percent of Institutions
10a. If required, have the institution laboratories developed Chemical Hygiene Plans in accordance with Title 29, Code of Federal Regulation, Section 1010.1450(e) (Occupational Exposure to Hazardous Chemicals in Laboratories)?	8	88.9%	1	11.1%	0	0.0%
10b. Have these laboratories established a Chemical Hygiene Committee?	5	55.6%	2	22.2%	2	22.2%

Source: Self-reported by the nine health-related institutions in the State Auditor's Office 2009 survey.

## Definition of Terms Provided to Respondents

Auditors provided survey respondents with a list of definitions to assist them in completing the survey.

### Chemical Hygiene Plan

All laboratories that use hazardous chemicals must develop and implement a written program that sets forth procedures, equipment, and work practices that are capable of protecting employees from the health hazards presented by hazardous chemicals used in that particular laboratory.

### Chemical Hygiene Officer

A designated employee who is qualified by training or experience to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan.

### Corrective Action Plan

A written report developed by an evaluation team that assesses what went right and what did not go as planned during an emergency or actual incident. This report should include formal recommendations and identify the parties responsible for making the corrections by a set timeline.

### Electronic Notifications

Using electronic means, such as e-mails or electronic newsletters, to distribute information to students, faculty, staff, or patients.

### Fire Panel Boxes

A device that allows officials to announce messages through the fire alarm system in each building. This is distinct from standard fire alarms that can emit only a siren or pre-recorded voice.

### Functional Exercise

An exercise that is designed to test and evaluate selected emergency functions and the interaction of various levels of government, response organizations, volunteer groups, and industry in a simulated emergency environment. This type of exercise usually involves key decision-makers, the local emergency operating center, and representatives of response and support organizations. Field response units are not normally activated and deployed during a functional exercise.

### Full-scale Exercise

An exercise that includes all the components of the functional exercise plus activation of an incident command post and actual deployment of response personnel and equipment to respond to a simulated emergency situation. Full-

scale exercises also may involve participation by mutual aid resources from other jurisdictions and state and federal coordination and response elements.

#### **Multidisciplinary Crisis Management Team**

A group that is responsible for the crisis management process. The group may be responsible for gathering and reviewing details of the crisis, determining crisis management and response activities, specifying communication procedures with internal and external audiences, and briefing senior staff.

#### **Multidisciplinary Team**

Groups of professionals from diverse disciplines who come together to provide comprehensive assessment and consultation.

#### **National Incident Management System (NIMS)**

This system provides a consistent nationwide template to assist federal, state, tribal, and local governments and private sector and nongovernmental organizations in working together effectively and efficiently to prepare for, prevent, respond to, and recover from domestic incidents, regardless of the incidents' cause, size, or complexity, including acts of catastrophic terrorism.

#### **NIMS Training**

NIMS requires the completion of all of the following certification courses by individuals assigned the responsibility of the command and control functions during emergencies:

ICS 100 – Introduction to Incident Command System

IS 100-HC – Introduction to Incident Command System for  
Healthcare/Hospitals

ICS-200 – Basic Incident Command System,

IS 200-HC – Applying ICS to Healthcare Organizations

ICS-300 – Intermediate Incident Command System

ICS-400 – Advanced Incident Command System

IS-700 – National Incident Management System (NIMS), An Introduction

IS-800 – National Response Framework (NRF), An Introduction

#### **Safety Walk**

A tour done around the campus grounds and buildings, during which unsafe conditions such as overgrown shrubs or burned out lighting can be identified.

#### **Tabletop Exercise**

During a tabletop exercise, emergency facilities are not activated and emergency response forces are not deployed. The purpose of a tabletop exercise is to facilitate a learning environment where response agencies can come together, face to face, to understand and talk through an integrated response to a specific emergency situation. Tabletop exercises provide an

environment for learning, discussing, and identifying issues that may not be as obvious when participants are physically separated as they are during drills and other exercises.

## Crime Statistics Reported by Institutions Under the Federal Clery Act

Higher education institutions are required to disclose their annual crime statistics under the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act). Statistics for calendar years 2001 through 2007 for the eight health-related institutions (institutions) are available online from the U.S. Department of Education. The University of Texas Health Science Center at Tyler is not required to report annual crime statistics under the Clery Act because it does not receive federal student financial assistance, and it did not prepare an annual report under the Clery Act. However, the institution compiles and submits its crime statistics to The University of Texas System Police, which compiles and publishes the crime statistics for all of The University of Texas System's universities and institutions in an annual crime report.

The total number of criminal offenses reported by the institutions varies significantly from year to year. For example, the institutions reported a 67.5 percent decrease in the total reported criminal offenses from 2001 to 2002, a 97.4 percent increase from 2004 to 2005, and a 42.1 percent decrease from 2005 to 2006. Criminal offenses increased 6.5 percent from 2006 to 2007. The reported offenses listed in Table 34 occurred (1) on campus, (2) on a non-campus property owned or controlled by the institution or an institution recognized student organization, or (3) on public property within the campus or adjacent to and accessible from the campus.

Table 34

Total Number of Criminal Offenses Reported by the State's Eight Health-related Institutions Calendar Years 2001 through 2007								
Type of Criminal Offense	2001	2002	2003	2004	2005	2006	2007	Total
Murder/Non-negligent Manslaughter	3	0	0	0	0	0	1	4
Negligent Manslaughter	0	0	0	0	6	0	0	6
Sex offenses - Forcible	11	2	8	13	14	18	12	78
Sex offenses - Non-forcible	0	0	0	0	2	0	0	2
Robbery	57	7	6	5	20	5	12	112
Aggravated Assault	68	22	34	21	60	18	45	268
Burglary	140	46	173	135	246	160	150	1,050
Motor Vehicle Theft	139	58	57	53	104	62	56	529
Arson	0	1	4	3	2	0	4	14
<b>Totals</b>	<b>418</b>	<b>136</b>	<b>282</b>	<b>230</b>	<b>454</b>	<b>263</b>	<b>280</b>	<b>2,063</b>
<b>Percent of Increase/(Decrease) from Previous Year</b>		<b>(67.5%)</b>	<b>107.4%</b>	<b>(18.4%)</b>	<b>97.4%</b>	<b>(42.1%)</b>	<b>6.5%</b>	

Source: U.S. Department of Education's Office of Postsecondary Education campus security data analysis tool at <http://ope.ed.gov/security/>.

## *Summary of House Bill 1831 (81st Legislature, Regular Session)*

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Governor Rick Perry signed House Bill 1831 (81st Legislature, Regular Session) relating to disaster preparedness and emergency management on June 19, 2009. House Bill 1831, which will become effective on September 1, 2009, created Texas Education Code, Section 51.217 (Multihazard Emergency Operations Plan; Safety and Security Audit). This new section requires higher education institutions to adopt and implement a multi-hazard emergency operations plan for use at the institution. The plan must address mitigation, preparedness, response, and recovery, and it also must provide for:

- Employee training on responding to an emergency.
- Mandatory drills to prepare students, faculty, and employees for responding to an emergency.
- Measures to ensure coordination with the Department of State Health Services and local emergency management agencies, law enforcement, health departments, and fire departments in the event of an emergency.

In addition, the new Section 51.217 created by House Bill 1831 requires each institution of higher education to (1) conduct a safety and security audit of the institution's facilities at least once every three years; (2) follow, to the extent possible, the safety and security audit procedures developed in consultation with the Governor's Division of Emergency Management; and (3) report the results of its safety and security audits to the institution's board of regents and the Governor's Division of Emergency Management.

## Responses from Texas A&M Health Science Center



### HEALTH SCIENCE CENTER

#### **Response to Audit Report on Campus Safety and Security Emergency Management Plans at Texas Health- related Institutions**

General Comment: The Audit Report reference the Texas A&M Health Science Center as Texas A&M University Health Science Center throughout the report...please note name of the institution is either The Texas A&M University System Health Science Center or Texas A&M Health Science Center.

#### **Chapter 1-B Recommendation**

"Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency."

The Texas A&M Health Science Center agrees. Additional guidelines to assist researchers in preparing laboratories for emergencies will be added to the Crisis Management Plan. The guidelines will be added in the Attachments Section as an Emergency Response Plan". As with the other Emergency Response Plans, the guidelines will be written in the form of a template. The individual component will then add information that is specific to their facility.

Person responsible for implementation: Chief Safety Officer

Implementation timeline: Spring 2010

#### **Chapter 1-C Recommendations**

- Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution wide list of inventory."
- Implement policies and procedures that specify how often the different types of research laboratories will be inspected
- Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

The Texas A&M University Health Science Center agrees that it could improve the monitoring of research laboratories.

- The Texas A&M Health Science Center purchasing operations are not centralized. Individual components and in some cases the individual principle investigators place and receive their respective orders with vendors. Further investigation is necessary to determine the feasibility of incorporating a list of items subject to pre-approval given the current accounting software.

Procedural controls in place include an annual inventory of hazardous materials to verify that labs contain only those items that have been approved by the appropriate governing body.

- Annual inventories of hazardous materials to include chemicals and certain biological materials (ie., biological material requiring pre-approval by the Institutional Biosafety Committee, IBC) will be conducted. These lists will then be combined into one master list for all HSC facilities. Inventories of Select Agents will continue to be conducted and reviewed by the Texas A&M University Office of Biosafety.
- A procedure for inspecting research laboratories will be developed. It will describe the items covered in the inspection, the notification process, inspection frequencies, reporting and correction verification process. All research laboratories will be inspected annual by the EHSM office.
- Texas A&M Health Science Center currently has in place written and approved policies and procedures addressing all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

Responsible Person: Chief Safety Officer and Vice President for Research and Graduate Studies

Implementation timeline: Spring 2010

## **Chapter 2 Recommendation**

“The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and timeframes for compliance with requirements.”

The Texas A&M Health Science Center Agrees.

The Texas A&M Health Science Center will actively develop and implement appropriate policies and procedures to comply with HB 1831. Due to changes in operational environments, the HSC will engage in continuous evaluation of policies and procedures to limit and identify gaps in regards HB 1831.

Responsible Person: Risk Manager

Implementation timeline: Commence on September 1, 2009; however, this is an on-going project due to environmental changes and impacts.

### **Chapter 3**

#### **Recommendation**

“The Texas A&M Health Science Center, The University of Texas Southwestern Medical Center at Dallas, and the University of North Texas Health Science Center at Fort Worth should ensure their annual crime reports are in compliance with all Clery Act Regulations.”

The Texas A&M Health Science Center Agrees.

The Texas A&M Health Science Center is in full compliance with 19 of the 20 regulations.

Title 34, Code of Federal Regulations, Section 668.56(b)(4)(i): Policies on the working relationship of security personnel with state and local police agencies. The Texas A&M Health Science Center is actively engaged with all local law enforcement in communities where HSC campuses are located. This issue is no longer deficient under Section (668.56(b)(4)(i) of the Clery Act. **Currently Compliant.**

Title 34, Code of Federal Regulations, Section 668.46(b)(10): Description of program for drug or alcohol abuse education. The description of the drug/alcohol is a focused work-in-progress. The Texas A&M Health Science Center depends on host campus programs to provide drug and alcohol abuse education where appropriate. The Texas A&M Health Science Center is developing an online/seminar for its remote campuses.

Responsible person: Director, Facilities & Safety Administration

Implementation timeline: Fall 2009

## Responses from Texas Tech University Health Sciences Center



TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER

Office of the Executive Vice President  
for Finance and Administration

August 5, 2009

Brianna Lehman  
Project Manager  
Texas State Auditor's Office  
P.O. Box 12067  
Austin, Texas 78701-2067

Dear Ms. Lehman,

Attached is the formal management response for Texas Tech University Health Sciences Center (TTUHSC) for inclusion in the State Auditor's Office's Audit Report on campus safety, security, and emergency management at health-related institutions.

Please contact Victor Means by email at [victor.means@ttuhsc.edu](mailto:victor.means@ttuhsc.edu) or by phone at 806-743-2597, if additional information is needed.

Sincerely,

A handwritten signature in cursive script that reads "Elmo M. Cavin".

Elmo M. Cavin  
Executive Vice President for Finance and Administration

cc: John C. Baldwin, M.D., President, TTUHSC  
Kim Turner, Chief Audit Executive, Texas Tech University System (TTUS)  
Jay Parchman, Executive Director, Public Safety & Emergency Management, TTUS  
Teresa Jack, Assistant Audit Director, TTUS  
George Morales, Asst. VP for Physical Plant and Support Services, TTUHSC  
Victor Means, Director of Safety Services, TTUHSC  
Felicita Kennedy, Unit Assoc. Director, Safety Services, TTUHSC

Suite 2B403 | 3601 4th Street STOP 6245 | Lubbock, Texas 79430-6245 | T 806.743.3080 | F 806.743.2910

**Texas Tech University Health Sciences Center  
Management Response to Recommendations from State Auditor's Office  
Audit Report on Campus Safety and Security Emergency Management Plans at  
Texas Health-related Institutions - July 2007**

**Laboratory Emergency Procedures**

Management agrees that Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

The Office of Research, in coordination with the institutional Emergency Management Coordinator (EMC) and the Department of Safety Services, will review existing institutional emergency plans, policies, and procedures in consideration of the development and implementation of additional emergency procedures detailing laboratory security in the event of an emergency. The review will include, but will not be limited to, existing institutional, departmental, and/or laboratory-specific emergency plans. Results of this review will be used to develop an action plan to address any deficiencies identified. We anticipate completing this review within 120 days.

Additional laboratory-specific emergency procedures will be cooperatively developed through the Department of Safety Services, the Chairs of each research department, and the Principal Investigator for each laboratory. Proposed plans/procedures will subsequently be reviewed for conformity and consistency with institutional policies, plans, and procedures. Development and implementation is expected to be completed within 180 days following review.

**Monitoring of Research Laboratories**

- Management agrees that Texas health-related institutions should consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.

TTUHSC is presently in the process of implementing purchasing controls over hazardous materials. Institutional purchasing policies have been revised (effective July 31, 2009) to prohibit the use of purchasing cards to purchase "...Chemicals and other potentially hazardous materials, radioactive materials, biological toxins, potentially hazardous infectious agents, and chemical precursors and chemical laboratory apparatus as referenced in the Memorandum of Understanding (MOU) and the Texas

**Texas Tech University Health Sciences Center  
Management Response to Recommendations from State Auditor's Office  
Audit Report on Campus Safety and Security Emergency Management Plans at  
Texas Health-related Institutions - July 2007**

Higher Education Coordinating Board (THECB), and as identified in the Texas Health and Safety Code, Sections 481.0621(b) and 481.002(51) and (53)..." In addition, all purchases of this nature are required to be made through the institutional electronic purchasing system, which requires the Department of Safety Services to approve prior to purchase. The Department of Safety Services presently receives a daily purchasing report identifying hazardous materials purchases, and works closely with the institutional Shipping/Receiving Department to identify and verify these shipments upon arrival.

- Management agrees that Texas health-related institutions should consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.

TTUHSC has required an inventory of laboratory hazardous materials since 2004. The Department of Safety Services has recently enhanced this program by implementing a bar-coding system to track hazardous materials in the research laboratories. All incoming shipments of hazardous materials are captured at the receiving dock, bar-coded by the department of Safety Services, and delivered to the laboratory. Inventory and bar-coding of existing hazardous materials presently contained in the research laboratories is currently being implemented by the Department of Safety Services. Completion of this ongoing project is estimated to be within 180-270 days. The Department of Safety Services will continue to maintain the inventory database and will facilitate an annual inventory update/reconciliation for each of the research laboratories.

- Management agrees that Texas health-related institutions should implement policies and procedures that specify how often the different types of research laboratories will be inspected.

TTUHSC has implemented policies and procedures that specify how often the different types of research laboratories will be inspected. General research laboratories are inspected at least twice annually. Radiation laboratories are inspected at least monthly, with detailed inspections (including radioactive material inventory verification) performed at least quarterly. Other highly-hazardous laboratories are inspected at a frequency that meets or exceeds any regulatory requirements, or at an interval appropriate for the hazard.

**Texas Tech University Health Sciences Center  
Management Response to Recommendations from State Auditor's Office  
Audit Report on Campus Safety and Security Emergency Management Plans at  
Texas Health-related Institutions - July 2007**

- Management agrees that Texas health-related institutions should verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

TTUHSC will formalize the existing institutional program addressing the requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program. The Department of Safety Services will develop, submit for approval, and implement additional policies and procedures necessary to assure that the institution is meeting the requirements of the MOU. We anticipate completion within 180 days.

**Compliance with House Bill 1831**

Management agrees that the institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, including persons responsible and timeframes for compliance with requirements.

TTUHSC has developed and implemented a multi-hazard emergency operations plan for use at the institution. The plan addresses mitigation, preparedness, response, and recovery, as well as identifying roles and responsibilities of key players in the function and operation of the plan.

Employees and students are made aware of the Emergency Operations Plan during new employee/student orientation programs. Additional training opportunities for emergency operations and response are being developed by the Department of Safety Services to be incorporated into all safety-related training programs provided by the department. This training will include modules that will become a part of required annual refresher training, as well as provide for development of site-specific policies and procedures at the departmental level within the institution. We anticipate development and implementation of additional training opportunities to be completed within 12 months.

The institutional Emergency Management Coordinator, in coordination with the Department of Safety Services and the Executive Director of Public Safety and Emergency Management will develop a plan to

**Texas Tech University Health Sciences Center  
Management Response to Recommendations from State Auditor's Office  
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Texas Health-related Institutions - July 2007**

implement drills to prepare students, faculty, and employees for responding to an emergency. These drills may include full-scale disaster drills, table-top exercises, and/or other appropriate drills to familiarize personnel with emergency response and actions. Feedback will be used to identify strengths and weaknesses in emergency operations plans, and thus develop corrective actions. We anticipate completion of development of the implementation plan within 12 months.

The institutional Emergency Management Coordinator, in coordination with the Executive Director of Public Safety and Emergency Management and the TTUS Office of Audit Services, will develop and implement audit procedures to coincide with the Governor's Division of Emergency Management recommendations. Audits will be conducted at intervals not to exceed 3 years. Audit results will be reported to the TTUS Board of Regents and the Governor's Division of Emergency Management. Our anticipated completion is dependent on publication of the audit guidelines.

**Clery Act Compliance**

No action necessary.

## Responses from The University of Texas Health Science Center at Houston



THE UNIVERSITY of TEXAS  
HEALTH SCIENCE CENTER AT HOUSTON

Larry R. Kaiser, MD, FACS  
*President*  
*Alkek-Williams Chair*

OFFICE OF THE PRESIDENT 713 500 3010  
7000 Fannin Street, 17th Floor 713 500 3059 fax  
Houston, Texas 77030  
Larry.Kaiser@uth.tmc.edu

August 7, 2009

Mr. John Keel, CPA – State Auditor  
State Auditor’s Office  
P.O. Box 12067  
Austin, Texas 78711-2067

Dear Mr. Keel:

This letter provides you with the University of Texas Health Science Center at Houston’s (UTHSC-H) management responses to findings and recommendations resulting from your audit of campus safety, security, and emergency at health-related institutions. We are responding to the recommendations contained in the draft report we received on July 24, 2009. We have included corrective action plans, implementation dates, and the titles of responsible persons. UTHSC-H’s management is confident that implementation of the corrective action plans will mitigate the risks identified by the findings.

#### **Page 7 Recommendation**

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

#### **Management’s Response**

UTHSC-H will review its current emergency procedures to assess the need for additional details on how to secure and protect research laboratories when an emergency event occurs.

**Responsible:** Vice President for Safety, Health, Environment, & Risk Management

**Implementation Date:** September 30, 2009

#### **Page 13 Recommendation**

Texas health-related institutions should:

Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.

Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.

---

*Founding Member of the Texas Medical Center*

Implement policies and procedures that specify how often the different types of research laboratories will be inspected.

Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

**Management's Response**

UTHSC-H will review its current purchasing and inventory controls over hazardous chemicals and/or biological materials to assess the adequacy of the controls; implement guidance that specifies how often the different types of research laboratories will be inspected; and verify that written and approved policies and procedures are in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

**Responsible:** Vice President for Safety, Health, Environment, & Risk Management

**Implementation Date:** September 30, 2009

**Page 18 Recommendation**

The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and timeframes for compliance with requirements.

**Management's Response**

UTHSC-H will work with the UT System Administration Office of Risk management to review its current emergency plan and revise as necessary to comply with House Bill 1831 requirements.

**Responsible:** Vice President for Safety, Health, Environment, & Risk Management

**Implementation Date:** September 30, 2009

**Page 29 Recommendation**

Recommendation does not apply to UTHSC-H.

We thank the auditors from the State Auditor's Office assigned to our institution for their work and consideration.

Sincerely,



Larry R. Kaiser, M.D.

LKP:mmm

## Responses from The University of Texas Health Science Center at San Antonio



### State Auditor's Office - Campus Safety & Security Audit Management Responses August 7, 2009

#### **Recommendation #1**

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

**Management Response:** The Environmental Health & Safety Department will establish an Ad Hoc Working Group representing the Biological, Chemical, and Radiation Safety faculty committees and the UT Police Department. The charge of this group will be to evaluate existing institutional guidance for securing and protecting research laboratories in the event of an inclement weather and emergency conditions. New or revised emergency preparedness guidance will also be evaluated as part of the charge for this working group.

**Target date for management action to be completed: January 1, 2010**

#### **Recommendation #2**

Texas health-related institutions should:

- a) Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- b) Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.
- c) Implement policies and procedures that specify how often the different types of research laboratories will be inspected.
- d) Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

#### **Management Response:**

- a) The University of Texas Health Science Center at San Antonio uses a two-tiered approach for purchasing controls of extremely hazardous materials. The institutional Purchasing Department refers the suspected purchase of extremely hazardous materials to Environmental Health & Safety for evaluation and assessment. EH&S subsequently contacts the requesting department to evaluate the feasibility of each purchase on a case-by-case basis. Additionally, each night a proprietary search routine checks all daily purchases for extremely hazardous materials and automatically notifies Environmental Health & Safety prior to delivery on campus.

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210.567.2000 | Fax 210.567.2025 | www.uthscsa.edu

- b) The Texas Hazard Communication Act requires an annual update of the hazardous chemical inventory by December 31<sup>st</sup> of each year. These updates are completed by the management of each area using or storing hazardous chemicals and returned to Environmental Health & Safety. Additionally, the UTHSCSA Environmental Health & Safety Department conducts an annual risk assessment with research laboratories approved to use potentially infectious materials. This risk assessment includes an inventory review of all approved biological research conducted within the laboratory.
- c) The currently approved version of the UTHSCSA Chemical Safety Manual (2007) specifies the frequency for Environmental Health & Safety to conduct laboratory safety evaluations.
- d) The Environmental Health & Safety Department will collaborate with the Health Science Center Police Department and the Office of Business Affairs to evaluate existing policies and implement new campus policies necessary to meet the 2006 agreement between the Texas Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

**Target date for management action to be completed: January 1, 2010.**

**Recommendation #3**

The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and time frames for compliance with requirements.

**Management Response:** The new statutory requirements found in HB 1831 become effective on September 1, 2009. Environmental Health & Safety and UT Police will work with the University of Texas System Administration to evaluate and update institutional emergency management plans as required by HB 1831.

**Target date for management action to be completed: November 30, 2009**

## Responses from The University of Texas Health Science Center at Tyler



Office of the President

August 10, 2009

State Auditor's Office  
Attention: Brianna Lehman  
P. O. Box 12067  
Austin, Texas 78711-2067

Subject: Management response

The following are presented in response to your draft report on campus safety, security and emergency management at health-related institutions.

### Recommendation (pg. 7)

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

### Management's Response

UTHSCT currently has emergency response plans for the Research Labs. A group consisting of Campus Emergency Management Team and Research personnel will meet to review the plans and make recommendations on how to improve the ability to secure and protect the research labs, equipment, research, and the various hazardous chemicals and/or biological materials in the research labs in the event of an emergency.

**Responsible parties:** Maurice Finsterwald, Safety Manager and Robert Cromley, Chief of Police

**Implementation date:** August 31, 2009

### Recommendations (pg. 13)

Texas health-related institutions should:

- Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- Consider conducting at least an annual inventory of hazardous chemicals

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and biological materials and compiling and maintaining an institutionwide list of inventory.

- Implement policies and procedures that specify how often the different types of research laboratories will be inspected.
- Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

### **Management's Response**

#### **Part 1**

UTHSCT will review its current purchasing controls over hazardous chemicals and biological materials to assess the adequacy of the controls.

**Responsible party:** Claude Fortson, Purchasing Manager

**Implementation date:** September 30, 2009

#### **Parts 2 - 4**

UTHSCT conducts an annual inventory of chemicals in use for the facility. The Institutional BioSafety Committee conducts an Annual Inspection of areas where recombinant DNA is used to ensure all safety measures are in place. The Safety Department conducts an annual Safety Inspection to look at issues of Life Safety and General Safety within the facility. UTHSCT has a policy and procedure that describes how the facility will meet the *Memorandum of Understanding between the Texas Department of Public Safety and the Texas Higher Education Coordinating Board*. This policy is to be reviewed by the Environment of Care Committee in August 2009.

**Responsible parties:** Maurice Finsterwald, Safety Manager and Robert Cromley, Chief of Police

**Implementation date:** August 31, 2009

#### **Recommendation (pg. 18)**

The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and timeframes for compliance with requirements.

### **Management's Response**

In consultation with the UT System Office of Risk Management, UTHSCT is revising the Emergency Operations Plan (EOP) to comply with House Bill 1831 requirements. This includes the following:

- Concept of Operations
- Organization and Assignment of Responsibilities

- Direction and Control
- Readiness Levels
- Plan Approval and Implementation
- Situations and Assumptions
- Administration and Support
- Development and Maintenance

The revised EOP will be reviewed by the Environment of Care Committee at the August meeting. Once approved it will be forwarded for final approval and signature by the President of UTHSCT.

**Responsible parties:** Maurice Finsterwald, Safety Manager and Robert Cromley, Chief of Police

**Implementation date:** August 31, 2009

Sincerely,



Kirk A. Calhoun, M.D.  
President  
University of Texas Health Science Center at Tyler

**Responses from The University of Texas M.D. Anderson Cancer Center**



August 7, 2009

Business & Regulatory Affairs  
Unit 95  
713-745-1076 Phone  
713-745-1034 FAX

State Auditor's Office  
Attn: Brianna Lehman  
P.O. Box 12067  
Austin, Texas 78711-2067

Dear Ms. Lehman:

On behalf of Dr. John Mendelsohn, President, The University of Texas M. D. Anderson Cancer Center (UTMDACC), enclosed please find UTMDACC's formal response to recommendations on the draft report "Campus Safety and Security Emergency Management Plans at Texas Health related institutions."

The attached document includes UTMDACC's action plan to implement the recommendations that are applicable, along with the timeline and person(s) responsible for implementation.

Please feel free to contact us if you have questions or need additional information. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Leach".

Leon J. Leach  
Executive Vice President

Attachment

cc: William Daigneau, Vice President, Operations & Facilities Management, UTMDACC  
Matthew Berkheiser, Director, Environmental Health & Safety, UTMDACC  
Chris McKee, Associate Vice President, Business Affairs, UTMDACC  
J. Michael Peppers, Associate Vice President & Chief Audit Officer, UTMDACC  
Richard St. Onge, Associate Vice Chancellor for Health Affairs, UT System  
Charles Chaffin, Chief Audit Executive, UT System

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*A Comprehensive Cancer Center designated by the National Cancer Institute  
located in the Texas Medical Center*

Listed below are the responses of The University of Texas M. D. Anderson Cancer Center (UTMDACC) to the recommendations in the draft report "Campus Safety and Security Emergency Management Plans at Texas Health related institutions".

1. *Recommendation:*

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

*UTMDACC Response:*

UTMDACC will review current policies and procedures, conduct a risk assessment and determine if there is a need for additional written instructions. If additional instructions are required, we will develop those procedures. Currently, research materials and laboratory spaces are secured via internal police personnel and/or electronic restricted access during an emergency event.

*Person(s) responsible for implementation:*

Director, Environmental Health and Safety and Chief Safety Officer; Program Director, Safety; and Program Manager, Safety

*Timeline for implementation:*

Review current policies and conduct risk assessment – September 2009  
Creation of additional procedures (if deemed necessary) – November 2009

2. *Recommendation:*

Texas health-related institutions should:

- Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.

*UTMDACC Response:*

UTMDACC Purchasing has a Lawson purchasing control that requires pre-approval and/or tracking of hazardous chemicals, biological agents, select agents, radioactive materials and mercury containing devices.

*Person(s) responsible for implementation:*

Not applicable

*Timeline for implementation:*

Not applicable

- Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution wide list of inventory.

*UTMDACC Response:*

UTMDACC Environmental Health and Safety (EH&S) ensures all research labs conduct an annual inventory of all hazardous chemical and biological materials. Each lab is required to keep an inventory, per policy, but once a year (new process in the last few years), we send out a letter through the Office of Research requesting an updated inventory be sent to an EH&S e-mail account that is dedicated to receiving the inventory forms.

*Person(s) responsible for implementation:*

Not applicable

*Timeline for implementation:*

Not applicable

- Implement policies and procedures that specify how often the different types of research laboratories will be inspected

*UTMDACC Response:*

All research labs at UTMDACC are inspected at least annually, with high risk labs inspected with greater frequency (e.g., BSL-3 labs are inspected quarterly and select agent labs are inspected monthly).

*Person(s) responsible for implementation:*

Not applicable

*Timeline for implementation:*

Not applicable

- Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

*UTMDACC Response:*

Policies and procedures are in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

*Person(s) responsible for implementation:*

Not applicable

*Timeline for implementation:*

Not applicable

3. *Recommendation:*

The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and timeframes for compliance with requirements.

*UTMDACC Response:*

UTMDACC has in place many of the requirements of House Bill 1831, including an overall emergency management plan, which is based on the National Incident Management System (NIMS). We are working with The University of Texas System Office of Risk Management to analyze House Bill 1831 and will comply with all higher education requirements in the bill. We will make changes and additions to our current plans as required.

*Person(s) responsible for implementation:*

Director, Environmental Health and Safety and Chief Safety Officer; Program Director, Safety

*Timeline for implementation:*

Review of requirements – September 2009

Addition of changes, as needed – October to November 2009

## Responses from The University of Texas Medical Branch at Galveston

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Business Operations and Facilities

August 7, 2009

State Auditor's Office  
ATTN: Brianna Lehman  
P.O. Box 12067  
Austin, Texas 78711-2067

Dear Ms. Lehman:

Thank you for the opportunity to review the Texas State Auditor's draft report the audit of campus safety, security, and emergency management at health-related institutions. After reviewing the recommendations within the report, we would like to provide the following management responses:

**Recommendation**

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

**Management's Response**

UTMB has numerous emergency procedures in place; however, we will consider if any additional procedures are needed. The majority of the research buildings at UTMB have key card access allowing only authorized personnel to enter the laboratory. By policy, laboratory doors must be locked when the lab is unoccupied, regardless of the length of time.

In the event of emergency conditions, including power failure, tropical weather, etc. , EHS has developed a disaster planning kit that walks the laboratory through the planning process to prepare for this type of emergency. EHS holds several training sessions in which this packet is distributed. Many of the research buildings are on emergency power and critical freezers are on this power to preserve the contents in case of a power failure.

**Responsible Party**

Amy Goebel (Assures Continued Compliance)

**Implementation Date**

Immediately

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### **Recommendations**

Texas health-related institutions should:

- Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.
- Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institutionwide list of inventory.
- Implement policies and procedures that specify how often the different types of research laboratories will be inspected.
- Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

### **Management's Response**

Bullet 1: UTMB has already established purchasing controls related to radioactive materials and select agents. Additionally, Material Transfer Agreements are signed for biological materials transferred from one institution to another with Individual Principal Investigators maintaining inventories of all biological materials. At this time, there are no plans to consider pre-approval of the purchase of biological materials. However, EHS will evaluate the feasibility of pre-approval of chemical purchases in the Peoplesoft purchasing system.

Bullet 2: Annually, EHS receives a copy of the individual laboratory's chemical inventory, which is kept in the individual EHS faculty file. In an emergency, using information obtained during the laboratory audit process, EHS can manually pull the inventory and determine what chemicals are in the laboratory or the whole building if necessary. These are individual laboratory inventories, not a compilation. However, we will consider compiling a institution-wide list. Additionally, under the Department of Homeland Security Chemical Facility Anti-Terrorism Standard, EHS conducts an inventory of the listed chemicals annually to determine if the threshold limit is exceeded. If exceeded, a report is generated and sent to DHS.

Work with infectious substances and rDNA are approved for use by the Institutional Biosafety Committee. EHS retains a record of the agents approved for use. Additionally, the Select Agent labs keep an individual inventory of the agents maintained in their freezers. For security reasons, these inventories are maintained by the individual Principal Investigator and kept in the secure laboratory. EHS conducts quarterly inventory checks.

Bullet 3: By law, laboratories using radioactive materials are inspected twice a year. By policy, which resides in the UTMB Safety Manual, annual inspections of the research laboratories are conducted. The policy was approved by all the governing Safety Committees (Biosafety, Chemical Safety, General Safety, Radiation Safety). In special circumstances, inspections can be conducted more often.

Bullet 4: UTMB has a policy addressing the four requirements of the Memorandum Of Understanding between DPS and the Higher Education Coordinating Board. It is reviewed with the individual laboratory on an annual basis. It resides in the UTMB Safety Manual.

**Responsible Party**

Bullet 1: Amy Goebel

Bullets 2 – 4: Amy Goebel (Assures continued compliance)

**Implementation Date**

Bullet 1: February 2010

Bullets 2 – 4: Complete

**Recommendation**

The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and timeframes for compliance with requirements.

**Management's Response**

UTMB's Institutional Emergency Operations Plan already includes many elements of HR1831 and we will work with UT System Office of Risk Management to make the necessary revisions to the Plan and/or Plan Appendices to include all applicable sections (e.g., Section 6.13). Changes to the Plan will be presented to, and approved by the UTMB Strategic Executive Council.

**Responsible Party**

Michael Megna

**Implementation Date**

Review and Revisions: October 1, 2009. SEC Adoption to follow.

Please feel free to contact me at 409.772.5107 or Kimberly Hagara at 409.747.3277 if you have any questions or need clarification on our responses.

Sincerely,



Michael Megna  
Associate Vice President,  
Business Operations, Facilities & IEPO

cc: Dr. David L. Callender, President  
Mr. William R. Elger, Executive Vice President and Chief Business Officer  
Mr. Michael R. Shriner, Vice President for Facilities and Campus Services

## Responses from The University of Texas Southwestern Medical Center at Dallas



Daniel K. Podolsky, M.D.  
President  
Philip O'Bryan Montgomery, Jr., M.D. Distinguished  
Presidential Chair in Academic Administration

Professor of Internal Medicine  
Doris and Bryan Wildenthal Distinguished  
Chair in Medical Science

August 7, 2009

Mr. John Keel, CPA, State Auditor  
State Auditor's Office  
P.O. Box 12067  
Austin, Texas 78701

re: State Auditor's Office - Campus Safety and Security Emergency  
Management Plans

Dear Mr. Keel:

UT Southwestern welcomes the opportunity to comment on the audit report issued by the State Auditor's Office on the campus safety and security emergency management plans. UT Southwestern was one of the four institutions that participated in the site visit by the state auditors. Our comments and remarks are as follows:

Recommendation, Page 7:

Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in the event of an emergency.

Management Response:

UT Southwestern recognizes the critical importance of protecting all university assets - human resources and life safety, physical facilities/equipment and intellectual property - produced by our research programs. We are actively engaged in a business continuity program that will include continuity plans for every department and office within the university. We have an active work-group made up of researchers from various lab settings who are refining the general business continuity plan to be specific to research laboratory needs and requirements. The business continuity plans address a wide range of risks and emergency scenarios which can and might interrupt normal business processes. They include responses to emergency weather conditions (such as those resulting from tornadoes, flooding and adverse weather produced by coastal hurricanes) as well as emergencies caused by disease outbreaks and violence. The Office of Business Continuity is responsible for developing the template of the research plans and expects this to be complete by the end of 2009.

Recommendation, Page 13:

Texas health-related institutions should:

1. Consider implementing purchasing controls, such as pre-approvals or tracking purchases, over hazardous chemicals and biological materials.

5323 Harry Hines Blvd. / Dallas, Texas 75390-9002 / 214-648-2508 Fax 214-648-8690  
www.utsouthwestern.edu

Mr. John Keel  
August 7, 2009  
Page Two

2. Consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institution-wide list of inventory.
3. Implement policies and procedures that specify how often the different types of research laboratories will be inspected.
4. Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program.

Management Response:

UT Southwestern has a pre-approval process for high-risk materials, which includes radioactive material, select agents, and controlled substances. A committee will be established including representatives from the Environmental Health and Safety Office, Materials Management and research personnel to set criteria for purchasing and inventory of additional hazardous chemicals/biological materials based on a risk assessment. The committee should evaluate the technology available to enhance controls in the areas of purchasing, inventory controls, inspections, and precursor chemical programs. Additionally, the Environmental Health and Safety Office will undertake a comprehensive review of policies and procedures for hazardous chemicals and laboratory inspections, to be reviewed by the Radiation Safety Committee, the Biological and Chemical Safety Advisory Committee, and the Occupational Safety and Fire Protection Advisory Committee. The review is expected to be completed by the end of fiscal year 2010.

Research laboratories are dynamic and highly evolving workplaces, as research processes result in daily changes of the supplies and materials used. There are multiple criteria to be considered in determining what hazardous chemicals and biological material merits increased monitoring and inventory requirements in the lab setting. The review of our inventory policy and procedures and any changes will be based on best practices and industry standards.

Recommendation, Page 18:

The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible and timeframes for compliance with requirements.

Management Response:

UT Southwestern has in place many of the requirements of House Bill 1831, including an overall emergency management plan which is based on the National Incident Management System (NIMS). The Office of Business Continuity is working with the University of Texas System Office of Risk Management to analyze HB 1831 and will comply with all higher education requirements in the bill. We will make changes and additions to our current plans as required and within the timeframe set forth by HB 1831.

Mr. John Keel  
August 7, 2009  
Page Three

Recommendation, Page 29:

The Texas A&M University Health Science Center, The University of Texas Southwestern Medical Center at Dallas, and the University of North Texas Health Science Center at Fort Worth should ensure their annual crime reports are in compliance with all Clery Act regulations.

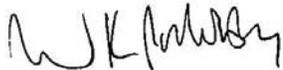
Management Response:

UT Southwestern will ensure our annual crime reports are in compliance with all Clery Act regulations. The university has in place a program for drug and alcohol-abuse education and a process for distributing that information to students and staff. Upon notification by the state auditors, the university immediately corrected the annual crime report to include reference to this program. The University Police update the report annually.

We would also like to make corrections to data in the tables listed as background information in Appendix 2. Table 11 - Total Number of Research Laboratory Rooms Reports by Each of the State's Nine Health-related Institutions inaccurately lists the number of research laboratory rooms for UT Southwestern as 914. The actual number as of this date is 2,789. Table 14 - Total Number of Types of Research Laboratories by Institution Reported by the State's Nine Health-related Institutions should not include a "total" column. The research activities within those rooms are not discreet and more than one type of activity may overlap within the same room.

This concludes our comments on the State Auditor's report. We expect to use this report as an important part of our on-going review process which ensures our research programs adhere to industry standards and best practices and are in complete compliance with all state and federal laws and regulations.

Sincerely,



Daniel K. Podolsky, M.D.

xc: Charles Chaffin  
John Roan  
Robert Rubel

### **Auditor Follow-up Comment**

Based on additional information provided by the institution, auditors revised Southwestern's self-reported total number of research laboratory rooms from 914 to 2,789 in Tables 11 and 12. Because Southwestern did not provide a breakdown by research activities for the 1,875 additional laboratory rooms, auditors did not revise Tables 2, 13, and 14 listing total research activities.

## Responses from The University of North Texas Health Science Center at Fort Worth



UNIVERSITY of NORTH TEXAS  
HEALTH SCIENCE CENTER at Fort Worth

★  
Education, Research,  
Patient Care and Service

August 7, 2009

Scott B. Ransom, DO, MBA, MPH  
President

State Auditor's Office  
P.O. Box 12067  
Austin, Texas 78711-2067

Attention: Brianna Lehman

Dear Ms. Lehman:

Below are management's responses from the University of North Texas Health Science Center at Fort Worth (UNTHSC) related to your draft audit report pertaining to the campus safety, security, and emergency management at health-related institutions.

**Texas State Auditor's Recommendation (p.7 of draft report):** Texas health-related institutions should consider developing and implementing additional emergency procedures that detail how to secure and protect the research laboratories, equipment, research, and the various hazardous chemicals and/or biological materials in the research laboratories in case of emergency. **The UNT Health Science Center's management response to this recommendation:** The UNT Health Science Center agrees with the recommendation. The emergency leadership team\*, the institutional safety officer, the institutional chemical hygiene officer, and the institutional biosafety officer will be jointly responsible for implementing this recommendation during fiscal 2010.

**Texas State Auditor's Recommendations (p. 13 of draft report):** Texas health-related institutions should: (1) consider implementing purchasing controls, such as pre-approvals or tracking purchases of hazardous chemicals and biological materials; (2) consider conducting at least an annual inventory of hazardous chemicals and biological materials and compiling and maintaining an institutional wide list of inventory; (3) implement policies and procedures that specify how often the different types of research laboratories will be inspected; (4) Verify that they have written and approved policies and procedures in place to address all four requirements of the Memorandum of Understanding Between the Department of Public Safety and the Higher Education Coordinating Board on the Precursor Chemical Program. **The UNT Health Science Center's management response to this recommendation:** The UNT Health Science Center agrees to consider items (1) and (2) of this recommendation. The UNT Health Science Center agrees to verify written policies and procedures and implement them to meet the

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recommendations listed in subparts (3) and (4) above. The institutional safety officer, the chemical hygiene officer and the institutional biosafety officer will be jointly responsible for ensuring the organization implements these recommendations during fiscal 2010.

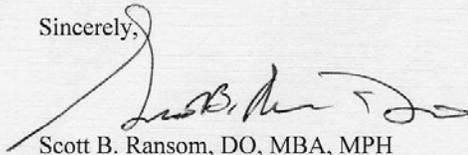
**Texas State Auditor's Recommendations (p. 18 of draft report):** The institutions should develop plans to ensure they comply with House Bill 1831 requirements once it becomes effective on September 1, 2009, that includes persons responsible for compliance with requirements. **The UNT Health Science Center's management response to this recommendation:** The UNT Health Science Center agrees with the recommendation. The emergency leadership team\* assisted by the institutional safety officer are responsible for meeting the implementation timelines and the ongoing requirements of this new state law.

**Texas State Auditor's Recommendations (p. 29 of draft report):** (1) The Texas A&M University Health Science Center, the University of Texas Southwestern Medical Center at Dallas, and the University of North Texas Health Science Center at Fort Worth should ensure their annual crime reports are in compliance with all Clery Act regulations. (2) The Legislature should consider requiring the State's higher education institutions, including the health-related institutions, to submit their Clery Act Annual Security Reports to the Department of Public Safety. **The UNT Health Science Center's management response to this recommendation:** The UNT Health Science Center agrees with part (1) of this recommendation. The Vice President for Student Affairs and the Chief of Police are jointly responsible for implementing recommendation part (1) and to maintain continuous compliance with the provisions of the Clery Act. Part (2) of the recommendation is not addressed to the UNT Health Science Center. Full compliance with part (1) was achieved during the timeframe between the site visit and receipt of the draft report.

\*Definition of emergency leadership team: That group of individuals identified by the president of UNT Health Science Center who will have command authority during emergencies. Presently this is a group of 11 senior administrators and the Chief of Police.

If you need additional information or clarification, please do not hesitate to contact me.

Sincerely,



Scott B. Ransom, DO, MBA, MPH  
President  
Professor in Obstetrics, Gynecology, Health Management and Policy

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