Fire and Burn Prevention

In the news:

August 2003 - Columbus Firefighters found a 60-year-old man dead in his wheelchair just inside his front door after a fire broke out in his home yesterday.

June 2003 - This week's fire on the South Side claimed a second victim last night as an 8-year-old girl who was burned in the blaze died of her injuries.

November 2002 - A fire killed a 2-year-old girl yesterday in a house where the gas had been turned off and her parents and siblings were using an electric heater for warmth.

October 2002 - The lack of smoke detectors — or ones that worked properly — was crucial in three Columbus-area fire deaths in the past two years, according to fire investigators.

September 2002 - Firefighters think a 78-year-old woman died 5 feet from safety as she tried to escape a fire at her home early yesterday.

Defining The Problem

More than 700,000 people are treated for burn injuries each year. (American Burn Association Fact Sheet, 2003). Over 50,000 are hospitalized, half of whom are hospitalized in specialized burn treatment facilities. Some 4,500 Americans die each year of fire/burn-related injuries. Severe non-fatal injuries are devastating injuries with enormous long-term health, financial and social burdens.

Goals

Reduce residential fire deaths.

HP 2010 Goal	*0.2 per 100,000*
OH 1998	0.9
US 1998	1.2

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

Increase use of functioning residential smoke alarms.

HP 2010 Goal	*100%*
OH 1998	identify baseline
US 1998	88%*/87%**

*Total population living in residences with functioning smoke alarm on every floor
**Residences with a functioning smoke alarm on every floor

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

Data

Prevention of burn and fire injury remains an important public health goal. Healthy People 2010 set as a goal, a sixfold reduction in residential fire deaths from the current 1.2 per 100,000 to 0.2 per 100,000. The Fire Emergency Management Agency's most recent report Fire in the United States (89-98) has shown that from 1992-1998, there has been a steady decline in cooking, heating and suspicious residential fires but other causes remain unchanged. In 1998, Ohio ranked 8th nationally in total numbers of fire and burn-related deaths, however, Ohio's death rate per 100,000 population ranked it 28th overall. Over the time period covered in the report, Ohio number of deaths declined 14% and the death rate declined 17%. There were 44,591 residential fires due to cooking, heating and electrical causes in Ohio from 1996-1999. The 360 deaths during the same time frame were primarily due to smoking, cooking, and children playing with matches or fire of suspicious origin (tied). Much of this improvement can be ascribed to better public awareness, improved home construction, and wider use of smoke detectors and sprinklers. The Juvenile Firesetters program of the Ohio Fire Marshal's

office has been particularly beneficial in separating curious children playing with matches from true criminal or psychosocial behaviors in juveniles involved in fire episodes. Although there have been advances, more can be done.

In 1998, 90% of civilian deaths (2660) resulted from residential fire/burn injuries.

Appendix I shows the data from this report on Ohio fire deaths. The highlighted areas indicate those groups where efforts to decrease death rates would seem most effective. It must be noted that many of these rates may not be accurate due to the low numbers of reported cases. Ohio has no consistent fire injury and death reporting system. Under Ohio statute, all burn injuries felt to be possibly related to a felony must be reported to authorities by the treating health agency; however, large numbers of burn injuries and deaths go unreported. Even if reported to county coroners, these injuries frequently only receive cursory review because of the 'obvious' nature of the cause of death.

Many states have established mandatory reporting mechanisms so that accurate data may be available for health care planning and prevention. Massachusetts has had a state mandated burn injury reporting system for 16 years. All hospitals must report admissions of patients with greater than 5% body surface area (BSA) burns to the state Fire Marshal's office. The purpose of this registry is to identify arsonists and to gather data for burn prevention. The annual report of the state fire data set is helpful in planning education and prevention programs. Such a registry and the required reporting of all hospitalized fire/burn injured patients and deaths would be very important in having current and appropriate data to target fire/burn injury prevention programs. Burns of greater than 5% BSA should be included in the data set collected by the State Trauma Registry.

In addition to issues related to residential injuries, we must also look at the large number of industrial related burn/chemical/contact injuries. Industrial injuries routinely comprise 40 to 50% of the admissions to burn centers (Saffle). Because of this, no injury prevention program would be complete without addressing work-related burn/fire injuries.

Modern burn care is provided in a variety of settings from local practitioners' offices to a series of over 140 specialized burn centers throughout the country. Ohio is fortunate to have both adult and pediatric burn centers in all major population centers.

Fire and Burn-Related Deaths

CDC mortality data shows that fire/burns remain one of the top 15 causes of death in the United States. In 1998, fire/burns were the 8th leading cause of unintentional injury death for all ages in the U.S. and 7th in Ohio. For all causes of injury, fire/burn injuries rated by age groups range from 3rd for infants younger than 1 year to 13th for the 5-14 year age group. Table I summarizes US fire/burn death data. Table II shows Ohio specific fire/burn death data. In the Ohio data set, there are data on subgroups by age, gender and race, but because of the small numbers some of this data may be inaccurate. Both tables show the differences in death rates between whites and African-Americans for fire/burn, fire/flame and residential injuries. There is a threefold difference in both US and Ohio death rates per 100,000 population between African-Americans and whites. Deaths by age groups show marked increases in both the actual and crude death rate for the very young and the very old. Ohio data follows the same patterns as US data but the numbers are too small for closer evaluations of the crude death rates.

TABLE I

US Fire/Burn deaths (per 100,000)
CDC 1998 (WISQARS) Data

Group	Deaths	Crude death rate	Age-Adjusted death rate
All races/both sexes, all ages	3813	1.41	1.19
White Both Sexes	2699	1.21	0.99
African-American, Both sexes	1020	2.96	2.73
Hispanic, both sexes	258	0.85	0.82
Fire/Flame Deaths			
All races/both sexes, all ages	3691	1.37	1.16
White, both sexes	2614	1.17	0.97
African-American, both sexes	992	2.88	2.67
Hispanic, both sexes	248	0.82	0.79
Residential Fire/Flame Deaths			
All races/both sexes, all ages	2898	1.07	0.89
White, both sexes	2040	0.91	0.73
African-American, both sexes	803	2.33	2.13
Hispanic, both sexes	191	0.63	0.60

TABLE II

Ohio Fire/Burn deaths (per 100,000)
CDC 1998 (WISQARS) Data

Group	Deaths	Crude death rate	Age-Adjusted death rate
All races/both sexes, all ages	125	1.11	0.94
White, both sexes	98	1.00	
African-American, both sexes	26	2.01	
Hispanic	0	0.00	
Fire/Flame			
All races/both sexes, all ages	122	1.09	0.93
White, both sexes	95	0.97	
African-American, both sexes	26	2.01	
Hispanic, both sexes	0	0.00	
Residential Fire/Flame Deaths			
All races/both sexes, all ages	103	0.92	0.76
White, both sexes	78	0.80	
African-American, both sexes	25	1.93	
Hispanic, both sexes	0	0.00	

Residential Fire Data

Healthy People 2010 specifically addresses a reduction in residential fire deaths. The US Fire Administration National Fire Data Center ranks the leading causes for residential fires as shown in Table III. For the dates encompassed, fires and injuries were primarily caused by cooking-related incidents. Deaths, however, usually occurred with a smoking-related event and were usually the result of people falling asleep with lit cigarettes. The resulting fire and smoke overcame the individuals with resulting large burn and inhalation injuries. The incomplete combustion of petroleum based products, acrylic paints, nylon and synthetic carpeting and furniture covering materials in our living environments produces deadly hydrogen cyanide and hydrogen sulfides gases which are highly lethal. Carbon monoxide (CO) poisoning can also occur but is most commonly seen in multistory building fires where the CO rises and displaces oxygen.

TABLE III

LEADING CAUSES OF RESIDENTIAL FIRE (1994-1996)
(From 'Fire in the United States'(89-98)'; Fire Emergency Management Agency - US Fire Administration; National Fire Data Center-table 9)

Rank	Fires	Deaths	Injuries	$ Loss
1	Cooking	Smoking	Cooking	Arson
2	Arson	Arson	Arson	Electrical
3	Heating	Cooking	Smoking	Heating

In 1998, the FEMA-USFA data shows that the leading causes of residential fires and losses were those of suspicious origins while deaths continued to be primarily related to smoking and cooking related injuries. ('Fire in the United States', Fig 30 and 34). From 1992-1998 there has been a steady decline in cooking, heating and suspicious origin fires but other causes remain unchanged. ('Fire in the United States', Fig 35).

Data contained in the FEMA-USFA report show that in 1998, the Ohio death rate was 13.7 per million population, ranking Ohio 28th overall. Although Ohio ranked below the national average of 14.1 deaths per million, the 1998 Ohio rate was higher than its 1996 rate. From 1989-1998, Ohio fire deaths have decreased 14.1 % (185-154) and deaths per million 17.3% (1.71-1.37). The leading cause of residential fires (44,591) in Ohio for the 1996-1999 time period by rank order were cooking, heating and electrical-related. The 360 Ohio fire related deaths during the same time frame were caused by smoking, cooking, or fires of a suspicious origin/children playing with fire materials, which tied for third.

The report also identified groups with an increased risk of dying from fire/burn related injuries. Although elderly white males and females had death rates above the average, elderly African-Americans death rates were significantly higher. In youths younger than age 15 years, both males and female African-Americans had an excessive relative risk of deaths from fire/burn injuries.

TABLE IV

SELECTED AGE GROUPS WITH EXCESS DEATH RATES
(From 'Fire in the United States (89-98)'; Fire Emergency Management Agency - US Fire Administration; National fire Data Center)

	0-14	65+	65-74	75-84
White male	0.6	2.5	1.8	2.8
African-American male	2.1	8.5	6	9.8
White female	0.5	1.5	.9	1.9
African-American female	2.0	5.5	3.2	6.6

Data are also available from the Consumer Products Safety Commission to guide our efforts for fire/burn prevention. The CPSC residential fire data for 1998 shows that residential fires (332,300) accounted for 75% of all structural fires in the US and that 90% of civilian deaths (2660) resulted from residential fire/burns injuries. The major causes of these fires were cooking equipment (15%), heating (11%), electrical (11%), and stoves/ ranges (8%). Smoking directly accounted for 7% of fires (22,000) and 13% of injuries in residential fire. Smoking was responsible for 800 deaths, 1990 injuries, and $285 million in losses. Children playing with matches and lighters accounted for 10,500 fires and 1290 injuries. Playing with fire/ matches caused 210 deaths and $154 million in losses. Educational efforts to prevent children playing with matches have likely contributed to the decline of this type of fire.

Industrial and OSHA Data

Although Healthy People 2010 places major emphasis on reductions in residential fires, most burn centers find that as many as 40 to 45% of hospitalized patients injured are work related (Saffle, et al). These work-related injuries include not only fire/flame/burns but also exposure to hot objects and chemicals that lead to time in the hospital, lost days of work and high costs for short and long term disability. OSHA data show that in 2000, there were 1,070 burn/fire industrial deaths nationwide. In Ohio, during 2000-2001 there were 94 deaths and 23,197 injuries from harmful substances, electrical overhead power, extremes of temperature and fire/explosions reported to the Ohio Bureau of Workers Compensation (BWC). These deaths and injuries represent a significant economic impact to the citizens of Ohio and should be addressed in any statewide injury prevention program.

TABLE V

OSHA DEATH DATA (2000)

Cause of Death	1995-99 average	1999 numbers	2000 numbers
Exposure to harmful substances	561	533	480
Electric/OH power lines	442	405	384
Ext of temp	46	51	29
Fire/explosions	202	216	177

Data were obtained from the Ohio BWC. The most recent data for ICD-codes 942-949, which cover burns, hot objects and chemical exposures, were reviewed. This data set is only for those injuries for which a report was made to BWC. For the two most recent years (2000-2001), there were a total of 23,197 cases reported. The average age of the injured workers in both years was 33. There were 52 deaths (0.4%) in 2000 and 42 (0.3%) in 2001. Although the number of deaths declined, the decrease was not statistically significant between the two years (Chi^2 x= .2; p=.65). OSHA data show that nationally, there were 111,804 industrial related injuries in 2000 related to burns, hot objects and chemical exposures.

TABLE VI

US NON-FATAL INDUSTRIAL INJURIES

Cause of Injury	Total reported cases
Exposure to harmful substances	102830
Electric/OH power lines	3704
Fire/explosions	5270

US OSHA data

Costs & Consequences

The majority of specialized burn treatment facilities are affiliated with academic health centers. As many as 40% of these injured patients have no health insurance coverage at the time of their injury. Some of these patients ultimately qualify for Medicaid support, however many are not qualified and the health care institution must absorb these costs. The critically injured major burn patient can generate hospital bills in excess of $1 million. To promote a strong and well-financed state and national burn care system, the American Burn Association supports the maintenance and enhancement of Medicare and Medicaid disproportion share programs to ensure the continued provision of care for the poor and uninsured.

Policy Issues

State

The State Fire Marshal's Office maintains a website with links to relevant state legislation. http://www.com.state.oh.us/ODOC/sfm/ohiofirelaw.htm

Cigarettes are responsible for one out of four fire deaths. Each year between 900 and 1,000 people in the United States die and an additional 2,500 to 3,000 are injured from fires caused by cigarettes.

Risk Factors

Lack of Working Smoke Alarm

Persons living in homes without smoke alarms are at risk for fire/burn-related injuries and death. Data from the U.S. Consumer Products Safety Commission suggest that much of the decline in fatal fire/burn injuries of the past decade is related to the use of smoke alarms. Homes with smoke alarms typically have a death rate that is approximately 40-50% less than the rate for homes without alarms. Healthy People 2010 targets increased use of residential smoke alarms from the current 87-88% level to 100%. Fire in the United States: 1989-1998 provides data that suggest functioning smoke alarms were present in only 27% of residential fires and that in one-third of residential fire deaths, there was no smoke alarm.

Age

Children younger than 5 years and adults older than 65 years are at high risk for fire/burn-related injury and death. Young children may not be able to escape from a fire and they are more susceptible to deadly fumes. Those older than age 65 frequently have associated medical conditions that compound burn injuries. Patients with advanced cardiovascular disease, diabetes mellitus or renal impairment are clearly at a high risk of dying from modest or even minor burn injuries. For all genders and races, the 65 years and older age group has excessive mortality rates.

Occupation

Industrial injuries continue to be a significant site for burn and fire prevention with over 23,000 injuries in the past two years. Although the number of deaths continues to be low, there is still a large amount of lost wages and time from work related to these injuries. Industrial burn and fire injuries are an important target for prevention activities.

Other Factors

Other risk factors include being nonwhite, living in poverty, living in an urban or rural setting and having a disability.

Existing Programs

There are extensive opportunities for statewide burn and fire prevention education.

The Ohio Fire Prevention Bureau coordinates fire safety programs with an emphasis on children and the elderly. In addition, they develop and distribute fire safety brochures and posters throughout the state. All local fire departments actively participate in such activities.

An informal coalition of Ohio burn centers exists under the 'Ohio Burn Team', which is a voluntary educational group sponsored by the Ohio Hospital Association. The burn centers also distribute educational offerings, which are self-funded by the burn centers listed in Appendix II.

Burn and Fire Prevention information is also available from the following organizations:

American Burn Association
625 N. Michigan Ave.
Chicago, Il
312-642-9839

U.S. Fire Administration
Department of Homeland Security
Federal Emergency Management Agency

Discussion of Prevention Strategies

The American Burn Association's National Leadership Conference held in February of 2003 identified two burn/fire prevention issues requiring Federal legislative and state support. The first dealt with children's sleepwear standards and the second was fire-safe cigarettes.

In 1996 the Consumer Product Safety Commission (CPSC) voted 2-1 to lower long-established standards and permit the use of flammable products in children's sleepwear. This decision overturns standards established in 1972. Since this change, the Shriner's Hospitals for Children have seen a 157% increase in sleepwear-related injuries. Legislation is required to reverse the CPSC's 1996 ruling and establish a standard requiring that all sleepwear used by children be treated to retard flammability particularly for children ages 0-7 years. Overwhelming evidence indicates that national flammability standards for children's sleepwear can have a profound and positive impact, greatly reducing clothing related burn injuries and deaths.

Cigarettes are the leading cause of fire/burn deaths in the United States. Cigarettes are responsible for one out of four fire deaths. Each year, between 900 and 1,000 people in the United States die and an additional 2,500 to 3,000 are injured from fires caused by cigarettes. Cigarette-related fires result in more then $6 billion in societal and direct property damage. It is not only the smoker who is injured or killed but children and other family members, other residents in multifamily dwellings, firefighters, emergency medical personnel and other nonsmokers. Technology exists to produce cigarettes with a reduced propensity to start fires without affecting taste, cost or health hazards associated with smoking, however there is no national or state standard for cigarettes and no federal or state law requiring the establishment of such standards. Over the past 20 years, numerous attempted to pass such legislation have been proposed on both the federal and state level. New York passed such legislation in 2000. Ohio, too must step forward and pass legislation calling for national standards for 'fire-safe' cigarettes with both statehouse support and support of the Ohio Congressional delegation.

Each of Ohio's eight burn centers participates in some type of prevention activities. For hospitals, burn centers with their relatively low census compared to other programs such as cardiac and cancer care, remain a low funding priority. Dollars for burn center prevention activities are scarce and fund-raising is frequently delegated to volunteers or local foundations where the community needs of burn/fire prevention have a low priority. All full-time professional and most volunteer fire departments within the state also have some type of burn/fire prevention programs. Once again these are of a low funding priority. Even in metropolitan areas, with most cities and states looking at budget cuts, these prevention programs face ongoing financial stress. Although extensive burn/fire prevention activities occur regularly, there is a great amount of overlap and duplication. A coordinated and funded statewide clearinghouse for prevention activities could provide guidance, coordination and support for these activities and have significant benefits in the area of prevention.

The state of Ohio should make burn and fire injuries of greater then 5% body surface area a reportable disease so that a database can be developed to identify and target areas for burn and fire prevention. Information from the Ohio Bureau of Workers Compensation and Ohio Medicare and Medicaid data can be used as a start. The Ohio Hospital Association collects data on hospital discharges. Still, a significant number of relatively minor injures that do not warrant hospitalization, a Workers Compensation claim or payment under Medicare or Medicaid will be lost. Mandatory autopsies for all burn/fire deaths with state funding and collection and coordination of State Fire Marshal and arson investigative reports into the data set will allow for a better understanding of the nature and cause of burn/fire deaths.

The issue of smoke alarms is very important. The Fire Emergency Management Agency's report Fire in the United States (89-98) has shown the benefit of working smoke alarms. In two separate fires during the first half of 2003, five children have died in house fires without functioning smoke alarms. Data suggests that functioning smoke alarms could very likely have alerted adults and saved these children's lives. A coordinated statewide program of smoke alarm installation and annual inspection and battery replacement is indicated. Living spaces, old and new, must be equipped with smoke alarms. An annual statewide community day of smoke alarm inspection, testing and battery replacement is recommended. A cooperative effort of burn centers, firefighters, fire departments, and community activists must be mobilized to make this program a success.

Identified Areas for Targeted Burn/ Fire Prevention

This report readily identifies targeted population groups for Burn/Fire prevention educational efforts. This effort in the state of Ohio should be targeted toward the general African-American population and toward the extremes of ages. Work-site injuries also are an important site for educational and prevention efforts.

Local fire departments and building codes have been very effective in placement of smoke alarms. A statewide educational program to regularly check and ensure that these smoke alarms are in working order is needed.

A large percentage of residential fires occur in homes where smoke alarms are not functioning. A variety of issues need to be resolved. Frequently, smoke alarms are disabled because of 'nuisance alarms' from cigarette or kitchen smoke. Newer, more effective photoelectric or ionizing alarms may mediate this problem. The use of long-lasting batteries could allow for annual battery replacement. Educational activities are needed in schools, the workplace and neighborhoods to stress the importance of having a functioning smoke alarm in the home.

Recommendations to Prevent Fire & Burn Injuries

Improve surveillance

1. Classify burn and fire injuries of greater then 5% body surface area to be a reportable disease.
2. Develop a burn surveillance database to identify and target areas for burn and fire prevention. Provide funding for the collection and statewide coordination of the following sources of fire/burn data:
   - Ohio Bureau of Workers Compensation data
   - Ohio Medicare and Medicaid claims data
   - Ohio Hospital Association hospital discharge data
   - Clinic/emergency department data for burn injuries that do not warrant hospitalization
   - Mandatory autopsy reports for all burn/fire deaths
   - State Fire Marshal and arson investigative reports

Improve coordination of efforts

3. Establish a statewide Fire Prevention Commission to coordinate fire prevention activates. This commission should:
   - Review available national, regional and local fire/burn prevention materials
   - Serve as a repository for burn/fire prevention materials
   - Foster cooperative fire/burn prevention activities between burn centers, fire departments and other civic groups.
   - Develop/identify state and local resources to support burn/fire prevention activities
   - Plan and foster implementation of an annual statewide fire prevention week program.
   - Plan and promote a statewide smoke alarm installation and maintenance program.
   - Advocate for residential sprinklers and inter-linked smoke alarms in all newly constructed residences.
4. Provide funding for a coordinated, statewide clearinghouse of evaluated fire/ burn prevention resources and technical assistance. This clearinghouse could serve to coordinate the prevention efforts of Ohio's eight burn centers to avoid duplication.

Empower communities

5. Provide funding for a coordinated, annual, statewide smoke alarm awareness day. A cooperative effort of burn centers, firefighters, fire departments, and community activists could be mobilized to provide inspections, battery replacements and new installations as needed.
6. Support federal legislation to reinstate flammability standards for children's sleepwear, particularly for children ages 0-7 years. Enact similar state legislation.
7. Pass state legislation calling for national standards for 'fire-safe' cigarettes.

Target resources toward high-risk groups

8. Implement a statewide awareness and education campaign to encourage Ohioans to maintain their smoke alarms in working order. Raise awareness of proper alarm placement and different types of smoke alarms that may reduce the frequency of needed battery changes and/or "nuisance alarms", thereby reducing alarm deactivation rates. Target campaign to high risk groups including the following:
   - African Americans
   - Low income families
   - Families with young children
   - Older adults

References:

1) Health People 2010 report
2) Centers for Disease Control
3) National Fire Data Center, FEMA
4)US Occupational and Safety Health Administration
5)US Consumer Products Safety Commission
6)National Vital Statistics System
7)Ohio Bureau of Workers Compensation
8) Saffle JR, et al Recent outcomes in the treatment of burn injury in the United States: a report from the American Burn Association Patient Registry, JBCR, 1995, pp. 219-232.
9) American Burn Association 'Key legislative and policy issues', February 2003

APPENDIX I FIRE/BURN INJURIES 1998 (NVSS Data)

Fatal Injuri	1998 rates/ 100,000 pop.	# of deaths															
Type	Age Group	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-
Fire/burn	All races/both sexes	2.15*	.25*	.49*	.12*	.82*	.65*	.86*	1.09*	1.14*	0*	1.06*	.75*	1.34*	2.17*	3.32*	2.2
Fire/burn	White, both sexes	1.62*	.15*	.29*	0*	.96*	.45*	.85*	1.12*	1.6*	0*	1.01*	.83*	1.25*	1.62*	3.37*	1.7
Fire/burn	African-American, both sexes	5.3*	.81*	1.77*	.88*	0*	2.13*	1.08*	.97*	0*	0*	1.71*	0*	0*	7.26*	3.03*	8.2
Residential fire/flames	All races/both sexes	1.88*	.12*	.37*	.12*	.54*	.65*	.86*	.65*	1.08*	0*	.6*	.56*	1.11*	2.17*	2.81*	1.8
Residential fire/flames	White, both sexes	1.29*	0*	.14*	0*	.64*	.45*	.85*	.62*	1.23*	0*	.67*	.62*	1.25*	1.62*	2.8*	1.3
Residential fire/flames	African-American, both sexes	5.3*	.81*	1.77*	.88*	0*	2.13*	1.08*	.97*	0*	0*	0*	0*	0*	7.26*	3.03*	8.2

*=rate based on < 20 cases

Appendix II
Ohio Burn Center

Facility Name:	**C. R. Boeckman Regional Burn Center**
Address:	One Perkins Square
City:	**Akron**
State:	Ohio
Zip:	44308
Phone:	**(330) 379-8224**
Fax:	(330) 379-8152
Director Email:	N/A
Burn care beds:	12

Facility Name:	**Columbus Children's Hospital Burn Unit**
Address:	700 Children's Drive
City:	**Columbus**
State:	Ohio
Zip:	43205
Phone:	**(614) 722-4290**
Fax:	(614) 722-3903
Director Email:	gbesner@chi.osu.edu
Burn care beds:	11

Facility Name:	**The Shriners Hospitals for Children**
Address:	Cincinnati Burns Hospital 3229 Burnet Avenue
City:	**Cincinnati**
State:	Ohio
Zip:	45229
Phone:	**(513) 872-6000**
Fax:	(513) 872-6999
Director Email:	wardenuc@ix.netcom.com
Burn care beds:	30

Facility Name:	**Ohio State University Hospitals**
Address:	Burn Center 410 W. 10th Ave.
City:	**Columbus**
State:	Ohio
Zip:	43210-1228
Phone:	**(614) 293-8000**
Fax:	(614) 293-3381
Director Email:	N/A
Burn care beds:	15

Facility Name:	**University of Cincinnati Hospital**
Address:	Burn Special Care Unit 234 Goodman St.
City:	**Cincinnati**
State:	Ohio
Zip:	45267-0818
Phone:	**(513) 558-8199**
Fax:	(513) 558-2510
Director Email:	kaganrj@email.uc.edu
Burn care beds:	20

Facility Name:	**Miami Valley Hospital**
Address:	Regional Adult Burn Center One Wyoming St.
City:	**Dayton**
State:	Ohio
Zip:	45409-2722
Phone:	**(937) 208-2126**
Fax:	(937) 208-2883
Director Email:	sidney.miller@wright.edu
Burn care beds:	12

Facility Name:	**Metro Health Medical Center**
Address:	Comprehensive Burn Care Center 2500 MetroHealth Drive
City:	**Cleveland**
State:	Ohio
Zip:	44109
Phone:	**(216) 778-5643**
Fax:	(216) 778-1534
Director Email:	N/A
Burn care beds:	14

Facility Name:	**St. Vincent Mercy Medical Center**
Address:	Burn Care Center 2213 Cherry St.
City:	**Toledo**
State:	Ohio
Zip:	43608-2691
Phone:	**(419) 251-4734**
Fax:	(419) 251-4882
Director Email:	N/A
Burn care beds:	10