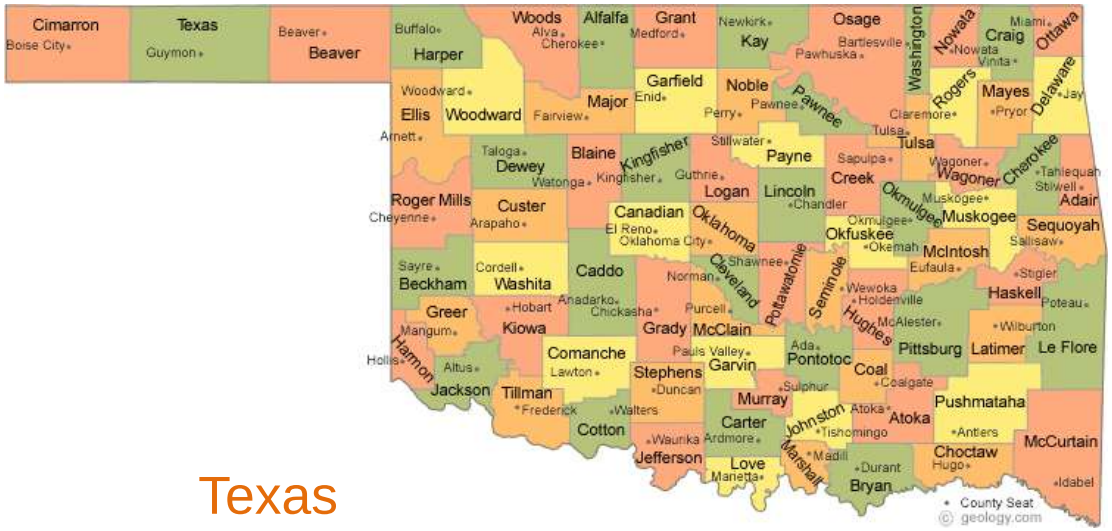
SAFEOKLAHOMA

Nancy Trench, Fire Protection Publications
IFSTA Headquarters
Oklahoma State University
Stillwater, OK

Kansas

Colorado

New Mexico



Missouri

Arkansas

Texas

KEEPING OKLAHOMA SAFE FROM HOME FIRES

SAFEOKLAHOMA

Smoke
Alarms &
Fire
Education

SAFEOKLAHOMA

Oklahoma Fire Chiefs Association

Oklahoma State Firefighters Association

Oklahoma State Fire Marshal

Oklahoma ABLETech at OSU

Oklahoma State Department of Health
Injury Prevention Service

Fire Protection Publications at OSU

SAFEOKLAHOMA

AFG Grant Awarded to OFCA in cooperation with OSFA

Technical Assistance Project Management Contracted to OSU

Characteristics of Home Fire Death Risk in the USA

ASSUMPTIONS

- Poverty
- Education
- Smoking
- Rural (population density)

Source: *U.S. Unintentional Fire Death Rates by State, Sept. 2007, National Fire Protection Association*

Characteristics of Home Fire Death Risk in the USA

ASSUMPTIONS

- Very young children
- Older adults
- People with disabilities
- People who live in poverty

Source: ***Centers for Disease Control and Prevention***

Cumulative Disadvantage Theory

ASSUMPTIONS

"…the presence of one risk factor magnifies the risk linked with a second factor..."

A way to analyze the impact of multi-factors

What Does this mean for Oklahoma?

“. . . Oklahoma ranks in the top 20 states (ranked high to low) for all four risks plus. . ”

Poverty and

Education and

Smoking and

Rural +++

30% more people in Oklahoma report a disability

Oklahoma is one of highest fire death rate states in the U.S.

4th Highest Fire Death Rate in 2004

2nd Highest Fire Death Rate in 2005

8th Highest Fire Death Rate in 2006

12th Highest Fire Death Rate in 2007

Oklahoma is one of highest fire death rate states in the U.S.

The USFA annually reports fire death rate for Oklahoma is more than double the national fire death rate

(calculated per million population)

Is FIRE RISK Similar in all 77 Oklahoma Counties?

TASK:

Assess Fire Risk for all 77 Counties

(Metro Areas NOT Included)

- U.S. Census Data
- State Fire Marshal Reports for 7 years

Statewide Fire Death Risk Assessment #1

Fire Deaths

Oklahoma State Fire Marshal Reports for 7 years (2002 thru 2008) Recorded by County.

Statewide Fire Death Risk Assessment #2

Household Income

13 counties have up to 30% of the population living below the poverty level. In comparison the national level is about 12 %.

Statewide Fire Death Risk Assessment #3

Education

14 counties have a low 63% of the adult population with a high school education. In comparison the national level is 80% of adults have a high school education.

Statewide Fire Death Risk Assessment #4

Rural (population density)

The US Census reports 41 Oklahoma counties with 2 to 26 persons per square mile which is the least density reported.

There are 550 communities in Oklahoma with a population under 2,500.

Statewide Fire Death Risk Assessment #5

People with Disabilities

11 counties have up to 32% of the population 21-64 years old reporting a disability compared with 20% of the population nationally.

Statewide Fire Death Risk Assessment

1. Fire Deaths
2. Household Income
3. Education
4. Population Density
5. People With Disabilities

http://www.census.gov/

American FactFinder

Get a **Fact Sheet** for your community

City/town,
County, or zip

State - - select a state - - GO

Or select a state using a map

Search by City, County, or Zip Code

http://www.census.gov/

American FactFinder

Get a **Fact Sheet** for your community

City/town,
County, or zip: **Harmon County**

State: **Oklahoma** GO

[Or select a state using a map]

Harmon County, Oklahoma

General Characteristics	Number	Percent	U.S.
Total population	3,283		
Male	1,592	48.5	49.1%
Female	1,691	51.5	50.9%
Median age (years)	39.9	(X)	35.3
Under 5 years	200	6.1	6.8%
18 years and over	2,433	74.1	74.3%
65 years and over	691	21.0	12.4%

Harmon County, Oklahoma

Social Characteristics	Number	Percent	U.S.
Population 25 years and over	2,192		
High school graduate or higher	1,385	63.2%	80.4%
Bachelor's degree or higher	266	12.1%	24.4%

Harmon County, Oklahoma

Economic Characteristics	Number	Percent	U.S.
Median household income in 1999 $	$22,365	(X)	$41,994
Median family income	$29,063	(X)	$50,046
Per capita income	$13,464	(X)	$21,587
Families below poverty level	205	23.5%	9.2%
Individuals below poverty level	940	29.7%	12.4%

County	Higher % of Population Below Poverty	Higher % of Population Without HS Education	Higher % of Population With Disabilities	Low Population Density 2 to 26 People Per Square Mile	2002 thru 2008 County Fire Deaths	
Adair	X	X			1	
Alfalfa				X	1	
Atoka		X		X	3	
Beaver				X	0	No Fire Deaths
Beckham				X	2	
Blaine				X	2	
Bryan					3	
Caddo	X			X	4	
Canadian					11	
Carter					7	
Cherokee	X				4	
Choctaw	X	X		X	10	
Cimmaron				X	1	

County	Higher % of Population Below Poverty	Higher % of Population Without HS Education	Higher % of Population With Disabilities	Low Population Density 2 to 26 People Per Square Mile	2002 thru 2008 County Fire Deaths	
Cleveland					**18**	
Coal	**X**	**X**	**X**	**X**	**3**	
Comanche					**4**	
Cotton				**X**	**1**	
Craig				**X**	**0**	**No Fire Deaths**
Creek					**12**	
Custer				**X**	**1**	
Delaware			**X**		**7**	
Dewey				**X**	**1**	
Ellis				**X**	**1**	
Garfield					**13**	
Garvin					**6**	
Grady					**15**	
Grant				**X**	**0**	**No fire deaths**
Greer				**X**	**0**	**No fire deaths**

County	Higher % of Population Below Poverty	Higher % of Population Without HS Education	Higher % of Population With Disabilities	Low Population Density 2 to 26 People Per Square Mile	2002 thru 2008 County Fire Deaths	
Harmon	X	X		X	1	
Harper				X	0	No Fire Deaths
Haskell		X	X	X	1	
Hughes	X		X	X	4	
Jackson					4	
Jefferson		X		X	0	No Fire Deaths
Johnston	X	X	X	X	6	
Kay					10	
Kingfisher				X	1	
Kiowa				X	2	
Latimer	X		X	X	5	
Le Flore		X			5	
Lincoln					7	

County	Higher % of Population Below Poverty	Higher % of Population Without HS Education	Higher % of Population With Disabilities	Low Population Density 2 to 26 People Per Square Mile	2002 thru 2008 County Fire Deaths	
Logan					**2**	
Love				**X**	**2**	
Major				**X**	**5**	
Marshal			**X**		**0**	**No Fire Deaths**
Mayes					**8**	
McClain					**4**	
McCurtain	**X**	**X**		**X**	**6**	
McIntosh			**X**		**7**	
Murray					**0**	**No Fire Deaths**
Muskogee					**14**	
Noble				**X**	**1**	
Nowata				**X**	**2**	
Okfuskee	**X**	**X**		**X**	**4**	

County	Higher % of Population Below Poverty	Higher % of Population Without HS Education	Higher % of Population With Disabilities	Low Population Density 2 to 26 People Per Square Mile	2002 thru 2008 County Fire Deaths
Oklahoma					**75**
Okmulgee					**3**
Osage				**X**	**3**
Ottawa					**6**
Pawnee					**1**
Payne					**7**
Pittsburg					**7**
Pontotoc					**1**
Pottawatomie					**4**
Pushmataha	**X**	**X**	**X**	**X**	**2**
Roger Mills				**X**	**1**
Rogers					**3**
Seminole					**6**

County	Higher % of Population Below Poverty	Higher % of Population Without HS Education	Higher % of Population With Disabilities	Low Population Density 2 to 26 People Per Square Mile	2002 thru 2008 County Fire Deaths	
Sequoyah		X	X		8	
Stephens					4	
Texas				X	4	
Tillman	X		X	X	1	
Tulsa					73	
Wagoner					4	
Washington					4	
Washita				X	0	No Fire Deaths
Woods				X	2	
Woodward				X	1	

458

Statewide Fire Death Risk Assessment – 15 Counties

4 Risks & Fire Deaths

Coal
Johnston
Pushmataha

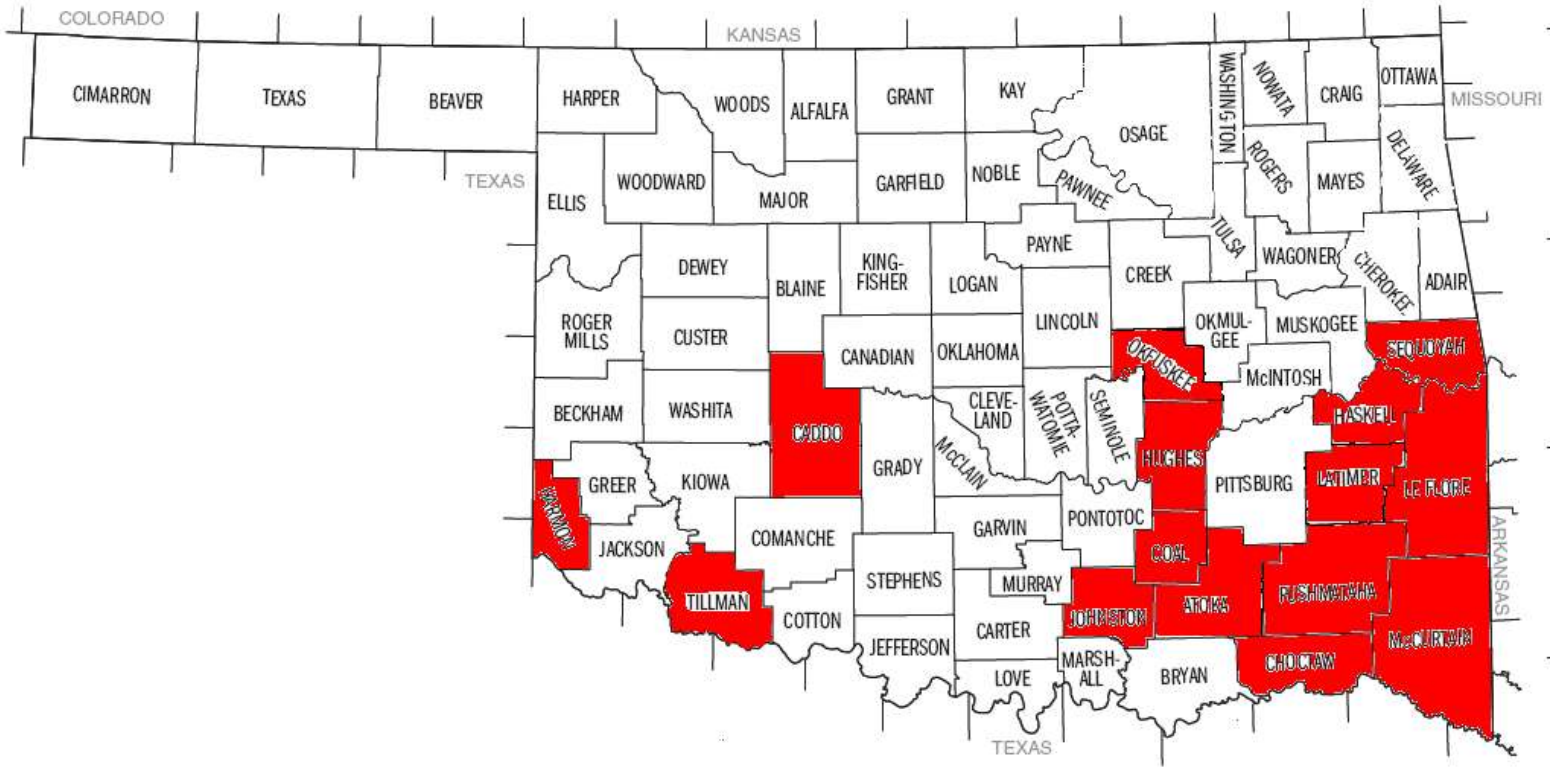
2 Risks & Fire Deaths

Adair
Atoka
Caddo
Sequoyah

3 Risks & Fire Deaths

Choctaw
Harmon
Haskell
Hughes
Latimer
McCurtain
Okfusgee
Tillman

15 Oklahoma Counties Higher Risk for Home Fire Deaths

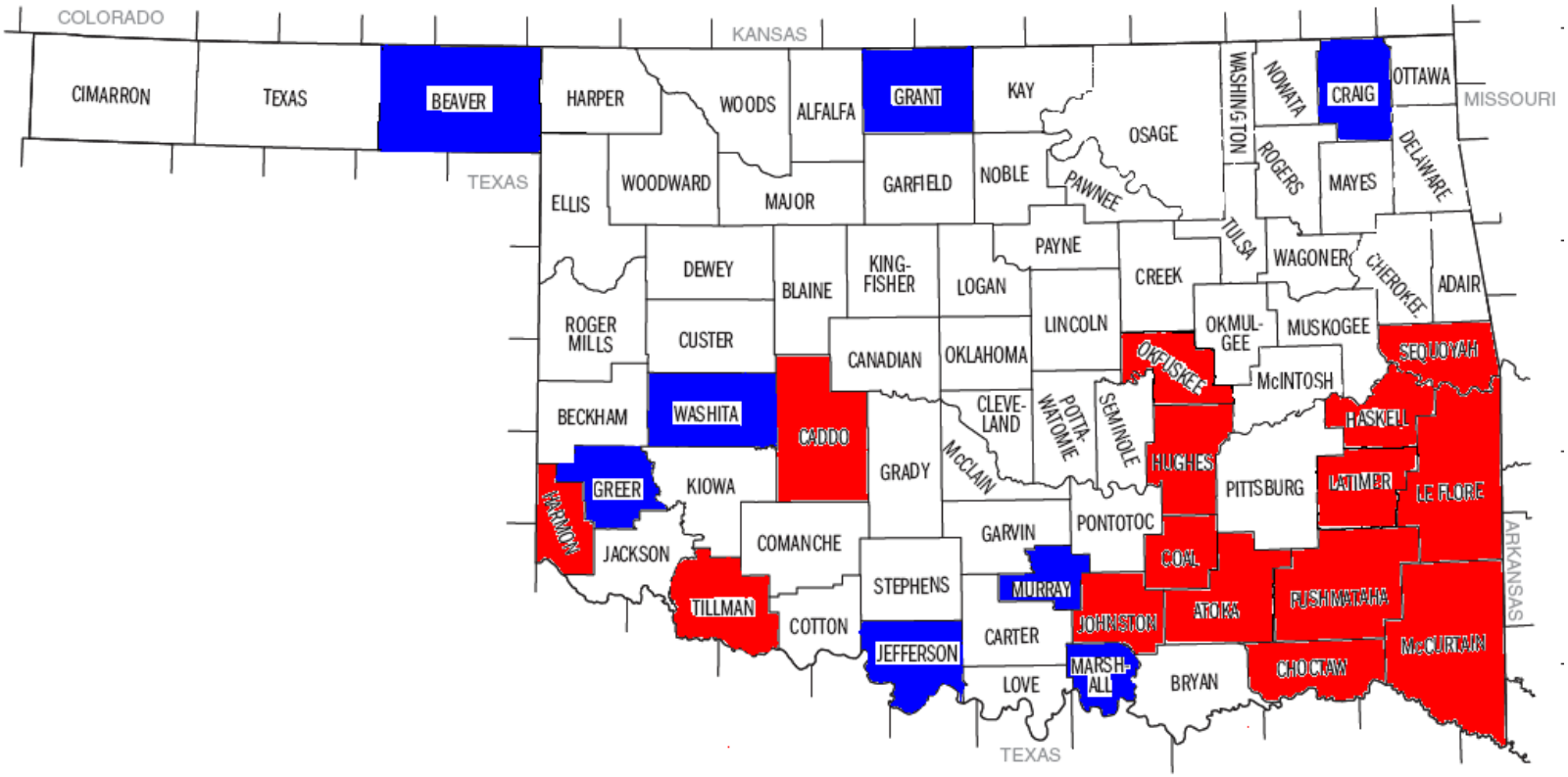


8 Counties NO Fire Deaths for 7 years

Beaver	Jefferson
Craig	Marshall
Grant	Murray
Greer	Washita

15 Red Counties-Higher Risk

8 Blue Counties-No Fire Deaths



Statewide Fire Death Risk Assessment – 15 Counties

4 Risks & Fire Deaths

Coal
Johnston
Pushmataha

2 Risks & Fire Deaths

Adair
Atoka
Caddo
Sequoyah

3 Risks & Fire Deaths

Choctaw
Harmon
Haskell
Hughes
Latimer
McCurtain
Okfusgee
Tillman

15 Counties at Higher Risk
What Do We Do?

Record for Each County

- Populations
- Households

Source: **U. S. Census American FactFinder**

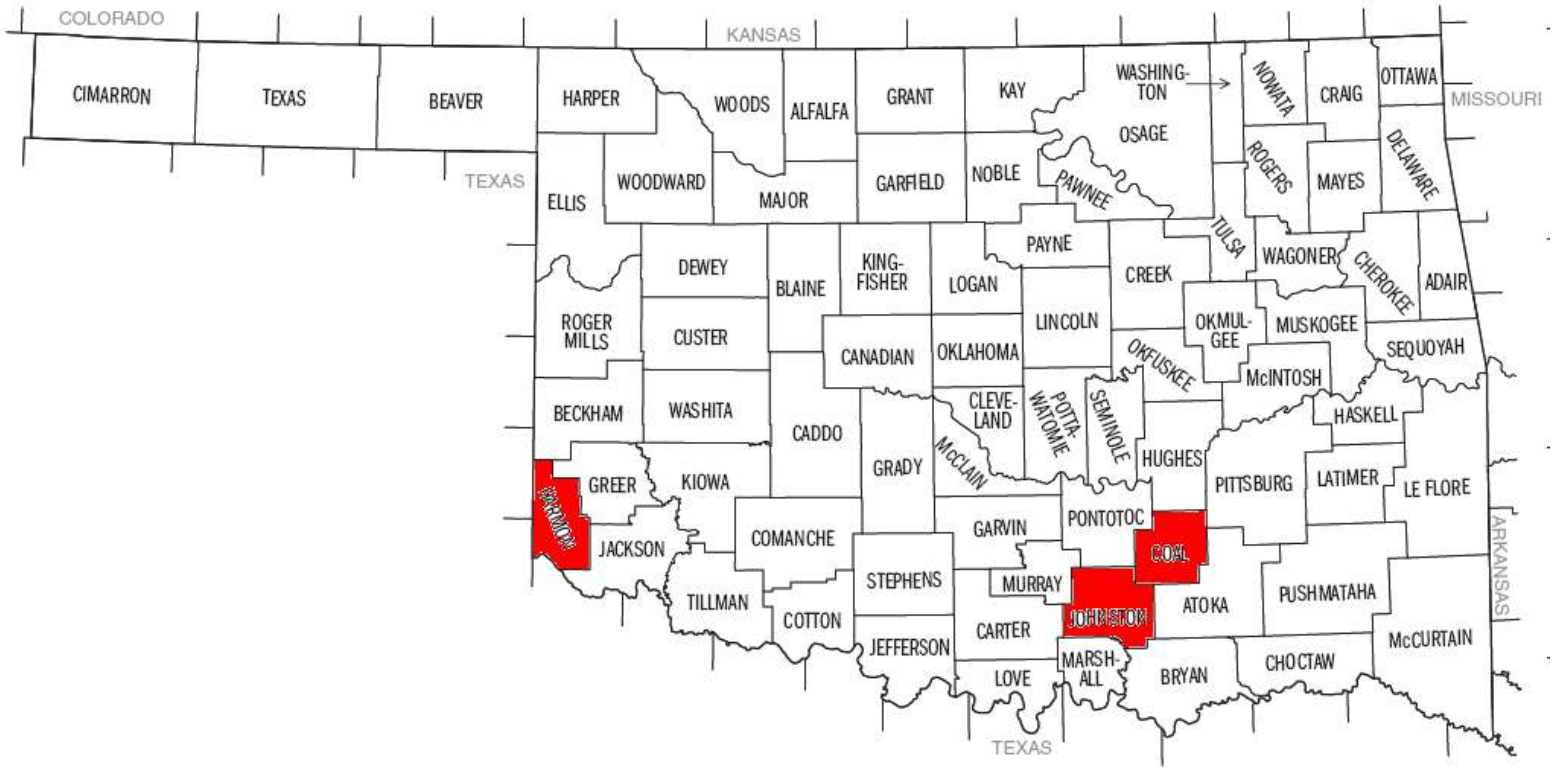
County Populations and Homes

Coal	2,373 housing units
Johnston	4,057 housing units
Harmon	1,266 housing units
	7,696 total

County Populations and Homes

	Population	Housing Units
Coal	6,031	2,373
Johnston	10,513	4,057
Harmon	3,283	1,266
	19,827	7,696

15 Oklahoma Counties Higher Risk for Home Fire Deaths



Coal County

Coal County

Coal County

Johnston County

Johnston County

Johnston County

Harmon County

Harmon County

Harmon County

Effective Fire Prevention

WORKING SMOKE ALARMS with TARGETED

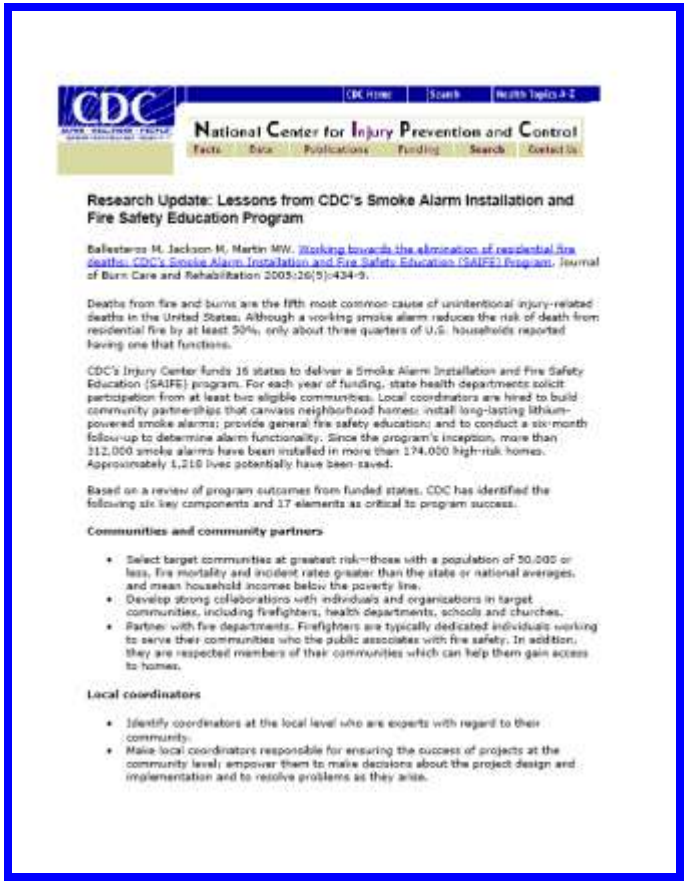
Home Fire Safety Messages greatly reduce the risk of fire casualties and offer cost effective life safety for people in their homes.

Effective Fire Prevention

- Targets the Fire Risk
- Involves the Target Audience
- Customizes educational messages to meet the needs of what the Target Audience MUST know about the Fire Risk

SafeOklahoma
Based on Best Practices

Lessons from CDC's Smoke Alarm Installation and Fire Safety Education Program



CDC

National Center for Injury Prevention and Control

Research Update: Lessons from CDC's Smoke Alarm Installation and Fire Safety Education Program

Ballesteros M, Jackson R, Martin MW. Working towards the elimination of residential fire deaths: CDC's Smoke Alarm Installation and Fire Safety Education (SAIFE) Program. Journal of Burn Care and Rehabilitation 2005;26(5):434-9.

Deaths from fire and burns are the fifth most common cause of unintentional injury-related deaths in the United States. Although a working smoke alarm reduces the risk of death from residential fire by at least 50%, only about three quarters of U.S. households reported having one that functions.

CDC's Injury Center funds 16 states to deliver a Smoke Alarm Installation and Fire Safety Education (SAIFE) program. For each year of funding, state health departments solicit participation from at least two eligible communities. Local coordinators are hired to build community partnerships that canvass neighborhood homes; install long-lasting lithium-powered smoke alarms; provide general fire safety education; and to conduct a six-month follow-up to determine alarm functionality. Since the program's inception, more than 312,000 smoke alarms have been installed in more than 174,000 high-risk homes. Approximately 1,210 lives potentially have been saved.

Based on a review of program outcomes from funded states, CDC has identified the following six key components and 17 elements as critical to program success.

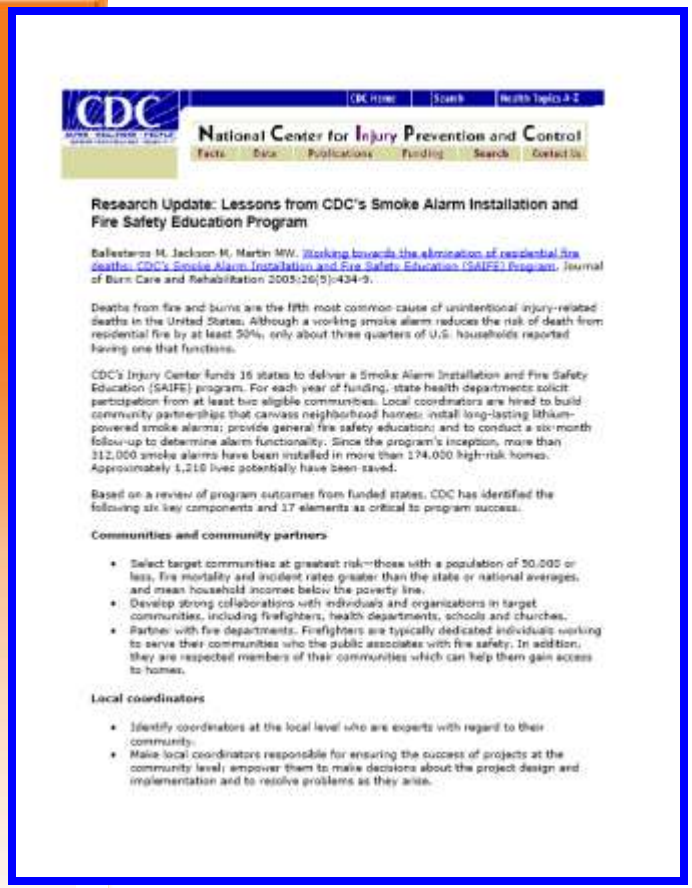
Communities and community partners

- Select target communities at greatest risk—those with a population of 50,000 or less, fire mortality and incident rates greater than the state or national averages, and mean household incomes below the poverty line.
- Develop strong collaborations with individuals and organizations in target communities, including firefighters, health departments, schools and churches.
- Partner with fire departments. Firefighters are typically dedicated individuals working to serve their communities who the public associates with fire safety. In addition, they are respected members of their communities which can help them gain access to homes.

Local coordinators

- Identify coordinators at the local level who are experts with regard to their community.
- Make local coordinators responsible for ensuring the success of projects at the community level; empower them to make decisions about the project design and implementation and to resolve problems as they arise.

Smoke Alarm Installation Best Practices



CDC

National Center for Injury Prevention and Control

Research Update: Lessons from CDC's Smoke Alarm Installation and Fire Safety Education Program

Ballesteros M, Jackson M, Martin MW. Working towards the elimination of residential fire deaths: CDC's Smoke Alarm Installation and Fire Safety Education (SAIFE) Program. Journal of Burn Care and Rehabilitation 2005;26(5):434-9.

Deaths from fire and burns are the fifth most common cause of unintentional injury-related deaths in the United States. Although a working smoke alarm reduces the risk of death from residential fire by at least 50%, only about three quarters of U.S. households reported having one that functions.

CDC's Injury Center funds 16 states to deliver a Smoke Alarm Installation and Fire Safety Education (SAIFE) program. For each year of funding, state health departments solicit participation from at least two eligible communities. Local coordinators are hired to build community partnerships that canvass neighborhood homes: install long-lasting lithium-powered smoke alarms; provide general fire safety education; and to conduct a six-month follow-up to determine alarm functionality. Since the program's inception, more than 312,000 smoke alarms have been installed in more than 174,000 high-risk homes. Approximately 1,210 lives potentially have been saved.

Based on a review of program outcomes from funded states, CDC has identified the following six key components and 17 elements as critical to program success.

Communities and community partners

- Select target communities at greatest risk—those with a population of 30,000 or less, fire mortality and incident rates greater than the state or national averages, and mean household incomes below the poverty line.
- Develop strong collaborations with individuals and organizations in target communities, including firefighters, health departments, schools and churches.
- Partner with fire departments. Firefighters are typically dedicated individuals working to serve their communities who the public associates with fire safety. In addition, they are respected members of their communities which can help them gain access to homes.

Local coordinators

- Identify coordinators at the local level who are experts with regard to their community.
- Make local coordinators responsible for ensuring the success of projects at the community level; empower them to make decisions about the project design and implementation and to resolve problems as they arise.

Based on a review of program outcomes from funded states, CDC has identified the following **six key components and 17 elements** as critical to program success.

Smoke Alarm Installation Best Practices

Oklahoma State University "Fire Safety Solutions for People With Disabilities"

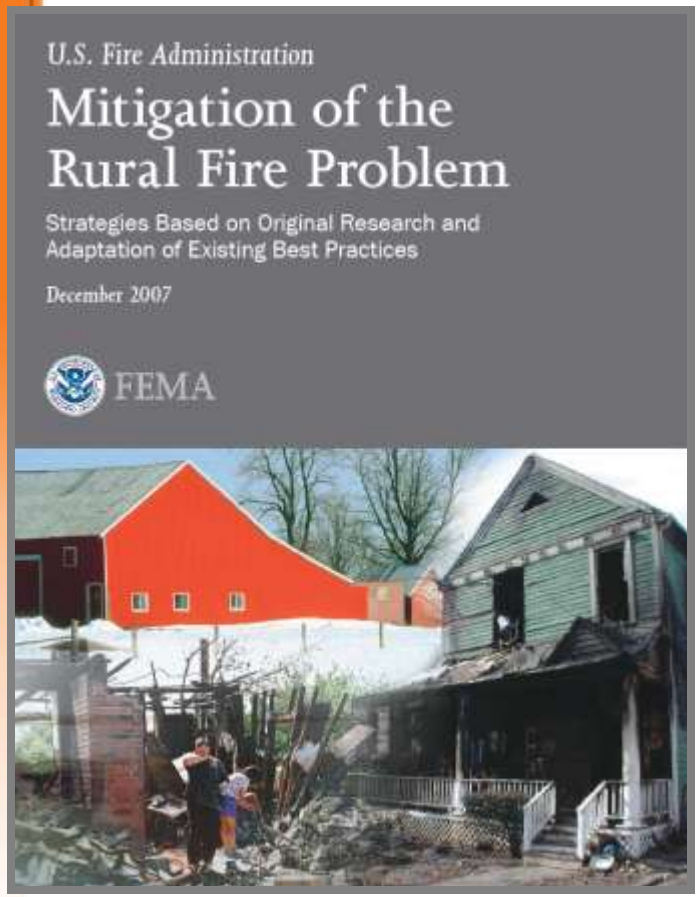
- Evaluation/Outcome Component
- Installation Protocols
- Equipment Selection
- Data Base Management

Fire Safety Solutions for People with Disabilities

Evaluation/Outcome

- Survey to each consumer
- Delivered their preferred method
- 3-6 months after installation
- 70% return rate
- 43% report changing a fire safety behavior
- 7 documented SAVES

SafeOklahoma
Based on Best Practices



Examine what can be done to reduce the high death rate from fires in rural communities. The objectives of the project:

a) **conduct research on behaviors and other factors contributing to the rural fire problem,**
b) **identify mitigation programs, technologies, and strategies to address those problems**
c) **propose actions that USFA Public Education Division can take to better implement programs in rural communities**

SAFEOKLAHOMA

GOAL

Install Smoke Alarms

50% of homes = 3,848 homes

2.5 alarms per home

8,648 alarms

+960 alarms for people who are deaf

SAFEOKLAHOMA

GOAL

Customize home fire safety education materials to meet the unique needs of each county

- **Emergency number not 911**
- **Safe outdoor burning**
- **Propane fuel**
- **Flammable liquids**

SAFEOKLAHOMA

Install Smoke Alarms

- Every level
- Outside sleeping areas
- In the bedrooms of smokers
- In every bedroom of mobile homes
- Dual sensor long life battery alarms with remote test and silence feature
- Alert equipment for hearing loss
- Alarms for people who are deaf

SAFEOKLAHOMA

Trained installer teams

- **Equipped with installation kits**
- **Forms and checklists**
- **Deliver customized home fire safety information**
  - **Test smoke alarms**
  - **Family fire drill**
  - **Reduce home fire hazards**

- **Stipend for each home served $7.50**

SAFEOKLAHOMA

Local Field Coordinators

- Promote program
- Receive phone calls for alarms
- Coordinate appointments with installer teams
- Process paperwork
- Receive weekly stipend $145

SAFEOKLAHOMA

Project Managers

- **Work with LFC's**
- **Train teams**
- **Monitor installations**
- **Maintain data base**
- **Conduct follow-up survey**
- **Collect data and prepare reports**

SafeOklahoma
UPDATE - Lessons Learned

- No recycling in the counties
- Lawful to burn household trash
- One county does not have 911
- Wildland risk – forest and range
- Propane fueled space heaters are prevalent

SafeOklahoma
UPDATE - Lessons Learned

- Avoid wheat harvest in west
- Avoid deer hunting seasons
- Limited access to homes on dirt roads after rain
- Expected stipend for installers and LFC to drive project

SafeOklahoma
UPDATE - Lessons Learned

- Common fire safety practices are not known by the fire service
- Previous CDC Smoke Alarm Projects are obstacles
- Requests for CO alarms
- Amish Community requested Propane Gas Detector/Alarms

SafeOklahoma
UPDATE - Lessons Learned

- Direct mail to homes has increased requests for alarms
- Purchased mailing list for $40
- MagicJack phone technology
- There is NO

Button

SafeOklahoma
UPDATE - Lessons Learned

Served about 20 homes and

First "SAVE" !!!!!!

- **Older adult**
- **Limited vision**
- **Hard of Hearing**
- **Alerted!!**

Kitchen Towel

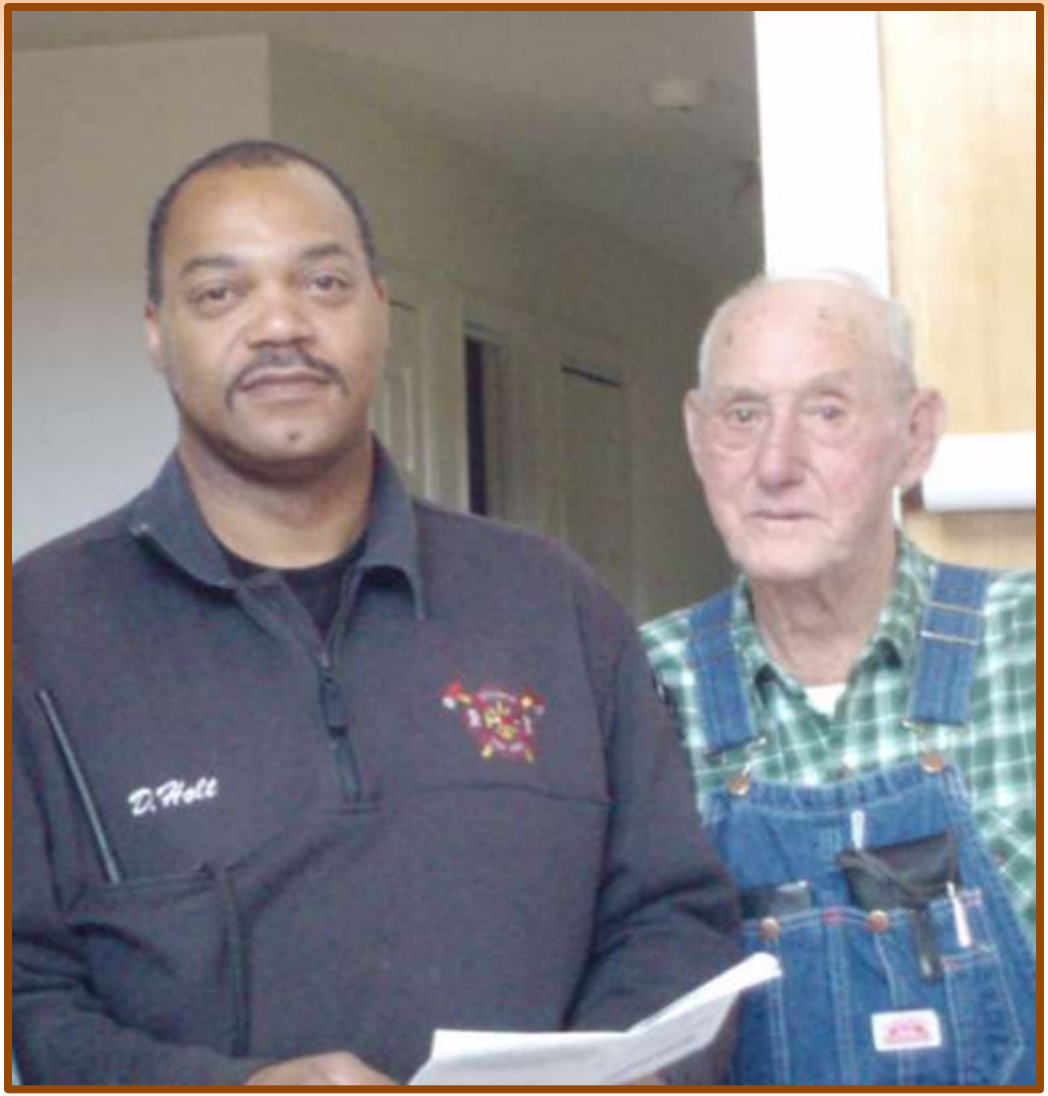
Stove Pilot Light

SafeOklahoma
UPDATE - Lessons Learned

FIRST “SAVE”

??How??

Chief Bob Jefferson



Chief David Holt