International smoke detector legislation

ISCAIP Smoke Detector Legislation Collaborators

World wide about 100 000 children die each year in fires, most of which occur in the home.¹ Smoke detectors, by giving early warning, can substantially reduce the risk of death in the event of a residential fire.² Many countries and states have therefore enacted legislation in an attempt to increase the prevalence of smoke detector use. The form of legislation introduced is likely to reflect a range of practical, economic, and ideological constraints. Legislation might apply to all housing or only new housing, and in the case of rental accommodation, the responsibility for installation of detectors may lie with the owner or with the occupier. To learn more about the diversity of legislative approaches, members of the International Society of Child and Adolescent Injury Prevention (ISCAIP) and injury control colleagues were invited to prepare short summaries of the smoke detector legislation in their own country, province, or state (table 1).

Comment

The observation that many countries and states around the world have enacted smoke detector legislation suggests that governments and legislators take seriously their responsibility to protect the public from the hazards of residential fires. However, the form of legislation varies widely both between and within countries. For example, Norway and Victoria (Australia) require all homes to have detectors with the onus on the owner to install them. On the other hand, in England and Wales there is no direct requirement to fit smoke detectors even in new housing, and in some US states there are no state laws at all on smoke detector installation (although building codes for new construction may include requirements for smoke detectors). The implementation of effective smoke detector legislation has the potential to make a substantial contribution to reducing fire deaths and injuries and is a prevention issue worthy of further research and advocacy.

Collaborators (in alphabetical order)
Responsibility for the accuracy of the data for the respective country, province, or state rests with the named collaborator.
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NFPA (National Fire Protection Association) 101, the Life Safety Code, provides minimum requirements for the design, operation, and maintenance of buildings and other fire alarm systems, initiating devices, and audible and visible notification devices. It covers inspection, testing, and maintenance of fire alarm systems.

England and Wales 1985 Multiple occupancy “Adequate means of escape”

The Netherlands Delayed New Hard wired, interconnected

Australia (Victoria) 1991 New and alterations Hard wired Owner/A$500

Australia (Queensland) 1999 All At least one, battery or hard wired Owner/A$500

Austria None New Decided by builders Builder/local authority

Canada (Alberta) 1977 New and multiple occupancy Hard wired Building inspectors if new

Canada (Manitoba) 1981 New Hard wired —

Canada (Ontario) 1998 All At least one, battery or hard wired Owner/CDN$200

Canada (Manitoba) 1981 New Hard wired —

Canada (Ontario) 1998 All At least one, battery or hard wired —

Northern Ireland 1994 New and alterations Hard wired Building inspectors

Norway 1991 All At least one Owner

USA (Alabama) None. Building code for new construction incorporates NFPA 72

USA (Alaska) 1975 All Per State Marshall Owner/State Fire Marshall

USA (Arizona) 1983 New and alterations Battery or hard wired Builder or owner

USA (Arkansas) None. 1994 Standard Building Code for new construction incorporates NFPA 72

USA (California) 1986 All single family dwellings sold Battery Owner

USA (Colorado) None. 1997 Uniform Building Code for new construction

USA (Connecticut) 1978 All Battery or hard wired Local fire marshal or building inspector

USA (Delaware) 1993 All Battery or hard wired; NFPA 72 Owner/$100–500

USA (District of Columbia) 1978 All At least one, battery or hard wired Owner/$100–300

USA (Florida) 1997 All Battery or hard wired; NFPA 72 Owner/State Fire Marshall

USA (Georgia) 1987 All Battery or hard wired; NFPA 72 Owner/State Fire Marshall

USA (Hawaii) None. 1985 Uniform Fire Code

USA (Idaho) 1994 All Battery Owner/State Fire Marshall

USA (Illinois) 1987 All At least one, battery or hard wired Owner/State Fire Marshall

USA (Indiana) 1982 All Battery or hard wired; NFPA 72 Owner/State Fire Marshall

USA (Iowa) 1991 All Battery or hard wired Owner/State Fire Marshall

USA (Kansas) 1998 All 1 family Hard wired if new Owner

USA (Kentucky) None. 1999 BOCA Code for new construction

USA (Louisiana) 1991 New 1 and 2 family —

USA (Maine) 1982 New, alterations, conversion, multiple occupancy At least one (each floor if >3 story multiple occupancy) Owner/up to $500

USA (Maryland) 1982 All 1 and 2 family dwellings At least one, battery or hard wired Owner/up to $50

USA (Massachusetts) 1979 All Battery or hard wired —/Local fire official—$100–$1000

USA (Michigan) 1974 Mobile homes (new or newly sold) Battery or hard wired —

USA (Minnesota) 1980 All Hard wired if new Owner

USA (Mississippi) None

USA (Missouri) None

USA (Montana) None

USA (Nebraska) 1981 All At least one, battery or hard wired Owner or agent/misdemeanour

USA (Nevada) 1981 Multiple occupancy Battery or hard wired Owner

USA (New Hampshire) 1982 All Automatic fire warning devices Owner/State Fire Marshall

USA (New Jersey) 1980 Multiple occupancy

USA (New Mexico) None

USA (New York) 1984 1 and 2 family and multiple occupancy At least one per dwelling unit Owner

USA (North Carolina) 1975 All Battery or hard wired, NFPA 72 Owner

USA (North Dakota) None. 1997 Uniform Building Code for new construction

USA (Ohio) 1977 Multiple occupancy Automatic smoke detection

USA (Oklahoma) None

USA (Oregon) 1997 All Long life battery or hard wired State Fire Marshall

USA (Pennsylvania) None

USA (Rhode Island) 1985 All Battery or hard wired, NFPA 72 Owner/$500

USA (South Carolina) 1995 1 and 2 family rental Battery or hard wired, NFPA 72 Owner/$50–200 or 30 days

USA (South Dakota) None

USA (Tennessee) 1989 Rental Battery or hard wired Owner/misdemeanour

USA (Texas) 1984 Rental Battery or hard wired Owner/State Fire Marshall

USA (Utah) None. 1997 Uniform Building Code for new construction

USA (Virginia) None. Localities may require detectors, in conformance with Uniform Statewide Building Code and 1999 BOCA Code

USA (Washington) 1980 All Battery or hard wired, NFPA 72 Owner/up to $50

USA (West Virginia) 1991 1 and 2 family Battery or hard wired, NFPA 72 Owner/$50–100

USA (Wisconsin) 1978 1 and 2 family, mobile homes Functional Owner/$25–500

USA (Wyoming) None. 1997 Uniform Building Code for new construction

1 Multiple occupancy generally refers to buildings occupied by three or more families.

2 NFPA (National Fire Protection Association) 72, the National Fire Alarm Code, sets minimum requirements for fire alarm systems, household fire warning equipment, and other fire alarm systems, initiating devices, and audible and visible fire alarm systems. NFPA (National Fire Protection Association) 101, the Life Safety Code, provides minimum requirements for the design, operation, and maintenance of buildings and other structures for safety to life from fire and similar emergencies. See http://www.nfpa.org for summaries of the codes.

3 1997 Uniform Building Code, published by the International Conference of Building Officials, includes specifications for location, type, and number of smoke detectors in dwelling units. Copies are commercially available (see http://www.icbo.org/).

4 BOCA National Fire Prevention Code (1999), published by the Building Officials and Code Administrators International, includes specifications for the location, number, and type of smoke detectors to be installed in new and existing buildings. Copies are commercially available (see http://www.bocai.org/).
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