



## **Mortality Report**

Deaths of Individuals Residing in Licensed  
Texas Nursing Facilities and Intermediate Care  
Facilities for Individuals with an Intellectual  
Disability or Related Condition in 2011

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**Center for Policy and Innovation**

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# Executive Summary

## **Background**

Texas Health and Safety Code sections 242.134 and 252.134 direct the Texas Department of Aging and Disability Services (DADS) to obtain official information on the deaths of individuals residing in licensed nursing facilities and in licensed intermediate care facilities for individuals with an intellectual disability or related condition (ICFs/IID). DADS is mandated to analyze this data to determine patterns and trends of deaths within these two populations.

Nursing facility and ICF/IID staff reported 23,981 deaths which occurred during calendar year 2011: 23,966 among residents of nursing facilities and 15 among residents of ICFs/IID. The Texas Department of State Health Services' (DSHS) Vital Statistics Unit was able to match official death certificate data to 21,429 of these deaths (21,417 of which occurred among residents of nursing facilities, and 12 among residents of ICFs/IID).

## **Overview of Findings**

### **Residents of Texas Nursing Facilities, 2011:**

- During the 12-month period of January 1 – December 31, 2011, a total of 221,846 individuals resided for at least one day in a licensed Texas nursing facility.
- The mortality rate for residents of licensed Texas nursing facilities in 2011 was 108 deaths per thousand.
- Official death certificate data were available for 21,417 out of the 23,981 deaths of residents of nursing facilities that occurred in 2011 (official data were not available for 2,564 deaths).
- Among the 21,417 decedents for whom official death certificate data were available:
  - The range of age at death was 17 to 110 years; average age at death was 82 years.
  - Females accounted for 61 percent, males for 39 percent, of decedents.
  - Average age at death for females was 84 years; for males, 79 years. This reflects the average older age of women in the general Texas NF population in 2011 (80 years versus 74 years for men).
  - Whites made up approximately 77 percent of decedents; Hispanics, 13 percent; and Blacks, 10 percent. Asians and people of “other” race/ethnicity comprised less than one percent of decedents.
  - Average age at death for Whites was 83 years; for Asians, and individuals of “other” race/ethnicity, 80; for Hispanics, 79; and for Blacks, 78 years. This was generally reflective of the age distribution within Texas NFs in 2011, in which Whites had a higher average age (79 years) and Blacks had a lower average age (72 years) than other racial/ethnic groups.

- Leading causes of death included heart disease (23 percent of deaths), cancer (14 percent), Alzheimer’s disease (nine percent), stroke (eight percent), and chronic lower respiratory diseases (six percent). These five causes were among the top six causes of death for the general Texas population in 2010.
- Ninety-nine percent of deaths were due to natural causes. One percent were due to accidents. Less than one tenth of one percent of deaths were due to suicide (eight deaths), homicide (four), and to causes which could not be determined (four).

**Residents of Texas ICFs/IID, 2011:**

- 5,538 individuals who received Medicaid services and supports resided for at least one day in a licensed Texas ICF/IID during 2011. Fifteen of these individuals died during the same year.
- The mortality rate for residents of ICFs/IID was 2.7 deaths per thousand.
- Official death certificate data were available for 12 out of the 15 deaths of residents of ICFs/IID that occurred in 2011.
- Among the 12 decedents for whom official death certificate data were available:
  - The range of age at death was 24-76 years; average age at death was 57.
  - Average age at death for males was 49 years; for females, 62 years.
  - Average age at death for Whites was 54 years; for Blacks, 48 years; and for Hispanics, 46 years.
  - The leading cause of death was heart disease. In 2010, heart disease was the leading cause of death for the general Texas population.
- All deaths were certified as being due to natural causes.

**Recommendations**

- DADS and DSHS data staff should continue to explore ways to increase the death certificate match rate. As a result of such exploration, the match rate in 2011 exceeded that of 2010 (89.5% versus 81.5%).
- Texas should consider implementing reviews to ensure that death certificates are completed by the correct types of certifiers and to identify certifiers who require additional training. The Texas Vital Statistics *Handbook on Death Registration* stipulates that only medical examiners and justices of the peace should certify causes of death that are other than natural. In 2011, however, 12 physicians who were not medical examiners or justices of the peace certified 11 deaths caused by accidents and one death whose cause could not be determined.

## INTRODUCTION

This report presents mortality data on individuals who resided in licensed Texas nursing facilities (NFs) and intermediate care facilities for individuals with an intellectual disability or related condition (ICFs/IID) during January 1 - December 31, 2011. Data on all individuals who were admitted into or who were already residing within a Texas NF, and on all persons receiving Medicaid services and supports who spent at least one day in a licensed ICF/IID, are included. Data on individuals residing in state supported living centers and in non-licensed ICFs/IID are not part of this report.

NFs are residential facilities for individuals with chronic illness who require regular care from licensed nurses. ICFs/IID are residential facilities providing services to six or more persons with an intellectual disability or related condition who are unable to live independently. The Texas Department of Aging and Disability Services (DADS) regulates both of these types of residential facilities. This report was prepared to satisfy the requirements of Texas Health and Safety Code (THSC) sections 242.134 and 252.134, which direct DADS to determine patterns and trends of incidents of death among residents of licensed NFs and ICFs/IID.

## BACKGROUND

This report is based primarily upon 21,429 official records for deaths that occurred during calendar year 2011. In 2011, licensed providers reported 23,981 deaths: 23,966 for individuals who had resided in NFs and 15 for individuals who had resided in ICFs/IID.

### Reporting of Deaths which Occurred in 2011, and Matching of Official Death Records

- Number of NF and ICF deaths in 2011 reported to DADS by providers:  
23,981  
(23,966 NF; 15 ICF)
- Number of deaths for which official death certificates were matched:  
21,429  
(21,417 NF; 12 ICF)

DSHS and DADS staff were able to match both name and social security number for 89.5 percent of these individuals (an improvement over the 81.5 percent match rate for 2010). This report thus examines data for 21,429 decedents: 21,417 of whom had resided in NFs and 12 of whom had resided in ICFs/IID.

Crude mortality rates - the ratio of total deaths to total specified population during a specific period of time - are presented in this report. These rates provide standardized measures that can be compared, for example, over different ages, ethnicities or time periods. The mortality rates were calculated using data from the Centers for Medicare & Medicaid Services' Minimum Data Set (MDS), which contains data on all residents of NFs, as well as using data from the DADS Quality Assurance and Improvement (QAI) Data Mart (including the Form 5300 dataset containing provider-reported deaths).

Of the 21,429 deaths for which death certificate data were

available, 20,792 (97 percent) were certified by physicians, 329 (1.5 percent) by justices of the peace, and 308 (1.4 percent) by medical examiners. In Texas, the circumstances of death determine who is allowed to certify the cause and manner of death. If the manner of death is other than natural, a justice of the peace or medical examiner is required to complete the death certificate.<sup>1</sup>

Leading causes of death are presented in this report. A number of infrequently occurring causes of death (such as homicide) are also examined. Causes of death are based upon the official underlying cause as classified by the *International Classification of Diseases, Tenth Revision* (ICD-10) codes, and are ranked according to the number of deaths per cause.

Section I of this report presents data on the deaths of individuals who had resided in Texas NFs during 2011. Section II presents data on the deaths of persons who had resided in licensed ICFs/IID.

## SECTION I: MORTALITY IN NURSING FACILITIES

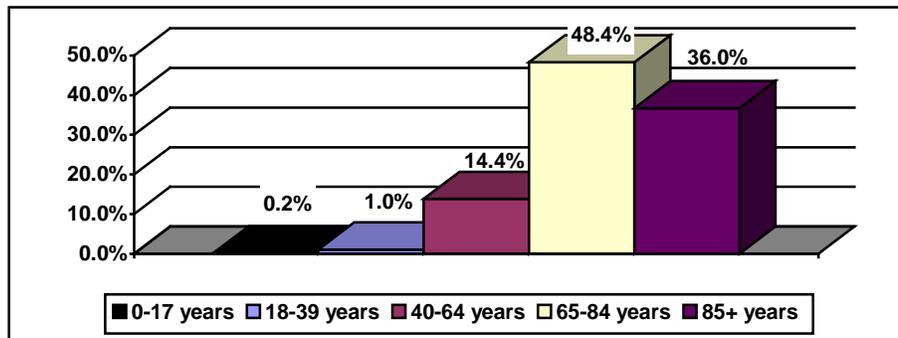
### Overall Mortality Rate

During the 12-month period of January 1, 2011 – December 31, 2011, a total of 221,846 individuals resided for at least one day in a licensed Texas NF. NF staff reported 23,966 deaths which occurred during the same period, resulting in an overall mortality rate of 108 deaths per thousand. These deaths occurred in 1,050 licensed NFs throughout the state.

### Mortality and Age

The 221,846 individuals residing in Texas NFs in 2011 ranged in age from less than one year (76 infants) to 113 years of age. 1,855 individuals were 100 years of age or older. As Figure 1 below shows, the majority of residents (84 percent) were age 65 or older. The average age of residents of NFs in 2011 was 78.

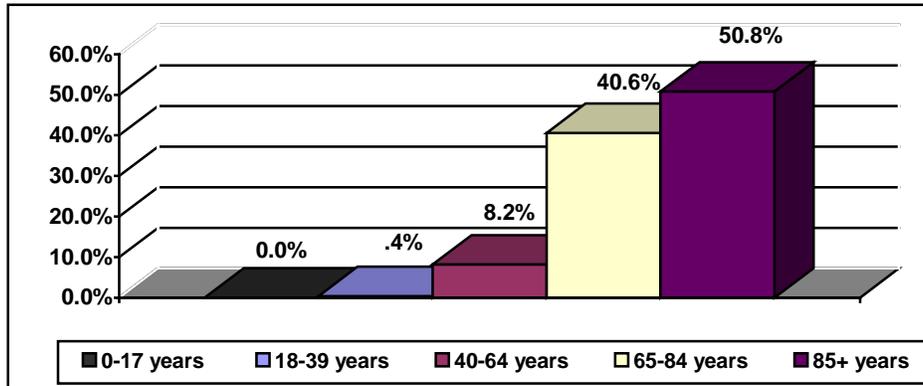
**Figure 1: Residents of Texas Nursing Facilities by Age Group, 2011**



Age at death ranged from 17 to 110 years among the 21,417 residents of NFs for whom death certificate data were available. Average age at death was 82 years.

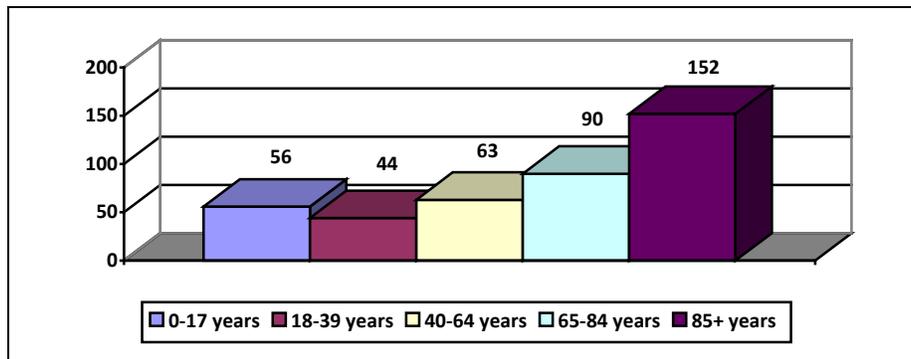
As Figure 2 below depicts, young adults age 18-39 accounted for 0.4 percent (78) of NF deaths; middle-aged adults 40-64 years for 8.2 percent (1,753) of deaths; older adults age 65-84 for 40.6 percent (8,703) of deaths, and the oldest adults (age 85 years and over) for 50.8 percent (10,882) of deaths.

**Figure 2: Percent of Deaths of Residents of Nursing Facilities by Age Group, 2011**



Mortality rates generally increased with age. As Figure 3 below shows, mortality rates ranged from 56 per thousand for children age 17 years or younger to 152 per thousand for adults age 85 and over.

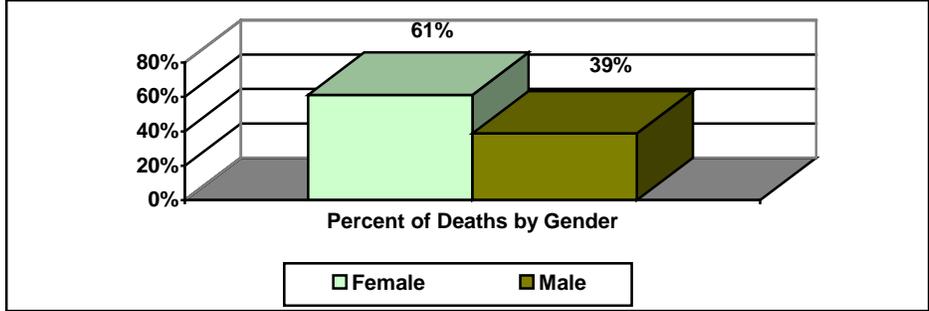
**Figure 3: Mortality Rates per Thousand Residents of Nursing Facilities by Age Group, 2011**



**Mortality and Gender**

Among the 221,846 individuals residing in Texas NFs in 2011, women outnumbered men 64 percent to 36 percent. Available death certificate data indicated that deaths of females correspondingly outnumbered those of males during that year. As Figure 3 below shows, women accounted for 61 percent (13,129) and men for 39 percent (8,288) of the 21,417 NF deaths examined in this report.

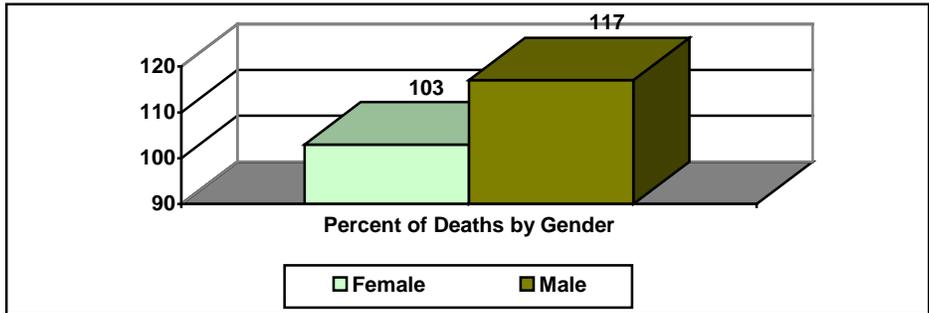
**Figure 4: Percent of Deaths of Residents of Nursing Facilities by Gender, 2011**



Average age at death for females was 84 years; for males, 79 years. This reflects the average older age of women in the general Texas NF population in 2011 (80 years) as compared to that of men (74 years).

As Figure 5 below shows, the mortality rate for females in Texas NFs in 2011 was 103 per thousand; for males, 117 per thousand.

**Figure 5: Mortality Rate per Thousand Residents of Nursing Facilities by Gender, 2011**



**Mortality and Ethnicity**

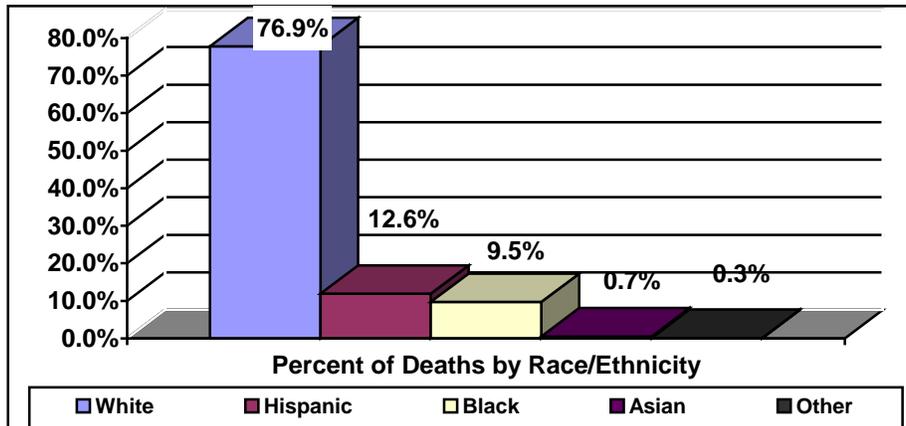
Whites were the predominant racial/ethnic group in Texas NFs in 2011, comprising 71.6 percent of the NF population. Hispanics made up 15.6 percent; Blacks, 11.7 percent; Asians, 0.7 percent; and people of "other" ethnicity, 0.3 percent.

Among the 21,417 residents of NFs whose deaths are examined in this report, Whites correspondingly comprised the majority group with 76.9 percent (16,471) of deaths in 2011. Hispanics made up 12.6 percent (2,703) of deaths; Blacks, 9.5 percent (2,038); Asians, 0.7 percent (147); and people of "other" ethnicity, 0.3 percent (58) of deaths.

The average age at death for Whites was 83 years; for Asians and individuals of "other" ethnicity, 81 years; for Hispanics, 79 years; and for Blacks, 78 years. This generally reflects the age distribution within Texas NFs in 2011, in which Whites had a higher average age (79 years) than other racial/ethnic groups: Asians, and individuals of other

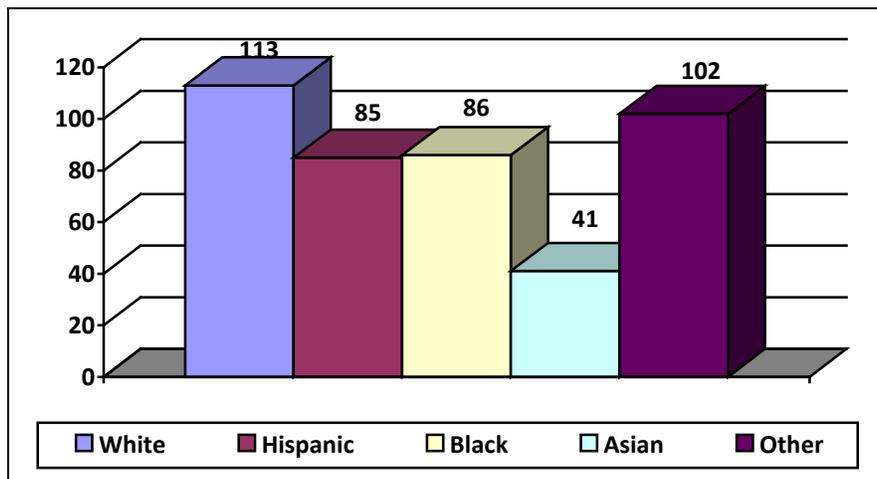
race/ethnicity had an average age of 76 to 77 years; Hispanics, 75 years; and Blacks had the youngest average age, 72 years.

**Figure 6: Percent of Deaths of Residents of Nursing Facilities by Race/ Ethnicity, 2011**



As Figure 7 below shows, the mortality rates for Whites in Texas NFs in 2011 was 113 per thousand; for Hispanics, 85 per thousand; for Blacks, 86 per thousand; and for people of “other” ethnicity, 102 per thousand. Asians had the lowest mortality rate: 41 per thousand.

**Figure 7: Mortality Rates per Thousand Residents of NFs by Race/ Ethnicity, 2011**



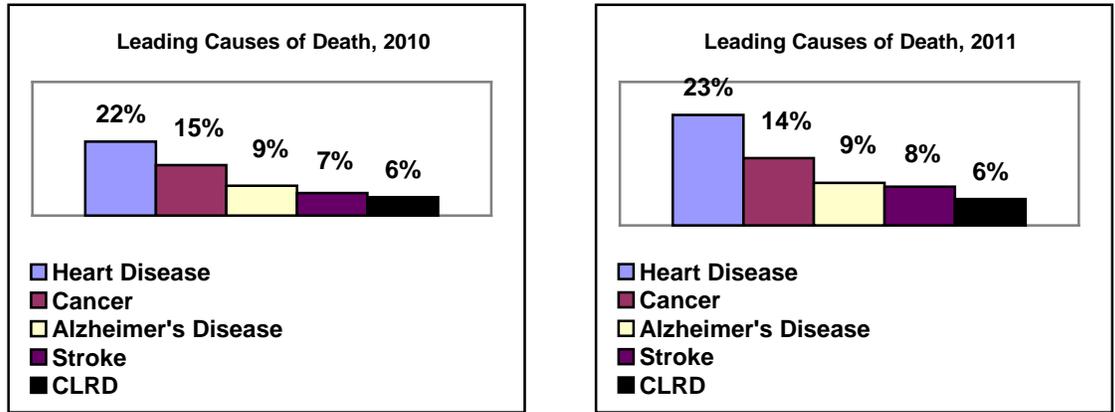
**Leading Causes of Death**

Among the 21,417 decedents for whom death certificate data were available, heart disease was the leading cause of mortality, accounting for 23.4 percent (5,016) of deaths. Cancer was the second most common cause, accounting for 14 percent (2,993) of deaths. Alzheimer's disease caused 8.9 percent (1,907) ; stroke, 7.7 percent (1,657); and chronic

lower respiratory diseases (including asthma, bronchitis, and emphysema), 6.2 percent (1,330) of deaths. Together these five leading causes of death accounted for 60.2 percent of deaths of residents of Texas NFs in 2011.

As Figure 8 below shows, the leading causes of death of residents of Texas NFs were the same during 2010 and 2011, with only slight variations in proportion.

**Figure 8: Leading Causes of Death of Residents of Nursing Facilities, 2010 - 2011**



All five leading causes of death of individuals residing in NFs in 2011 were among the six leading causes of death for the general Texas population. In 2010<sup>2</sup>, the leading causes of death for the general population were heart disease, cancer, stroke, accidents, chronic lower respiratory diseases, and Alzheimer’s disease (in rank order).

Additional leading causes of death among NF residents in 2011 included diabetes (which accounted for 3.1 percent of deaths), Parkinson’s disease (2.1 percent), kidney disease (2 percent), pneumonia (1.5 percent), and hypertensive diseases (1.3 percent) of deaths.

**Leading Causes of Death by Age Group**

As Table 1 below shows, leading causes of death varied by age group. Young adults age 18-39 had a much higher proportion of deaths due to accidents (10.3 percent) than any other age group. Middle-aged adults 40-64 had a higher proportion of deaths due to cancer (29.6 percent). Proportions of death due to heart disease, Alzheimer’s disease, and hypertension increased, while proportions of death due to diabetes, kidney disease, and pneumonia decreased, with age.

**Table 1: Leading Causes of Death of Residents of Nursing Facilities  
by Age Group, 2011**

Cause of Death	18-39 years		40-64 years		65-84 years		85+ years	
	#	%	#	%	#	%	#	%
Heart Disease	10	12.8%	253	14.4%	1,821	20.9%	2,932	26.9%
Cancer	17	21.8%	519	29.6%	1,591	18.3%	866	8.0%
Alzheimer's Disease	--	--	34	1.9%	662	7.6%	1,211	11.1%
Stroke	--	--	129	7.4%	710	8.2%	818	7.5%
CLRD	1	1.3%	89	5.1%	712	8.2%	528	4.9%
Diabetes	5	6.4%	93	5.3%	339	3.9%	223	2.0%
Parkinson's	--	--	6	0.3%	252	2.9%	202	1.9%
Kidney Disease	3	3.8%	51	2.9%	181	2.1%	192	1.8%
Pneumonia	1	2.6%	17	1.0%	103	1.2%	208	1.9%
Hypertensive Diseases	--	--	14	0.8%	95	1.1%	164	1.5%
<b>Total</b>								

**Leading Causes of Death by Gender**

As Table 2 below shows, heart disease was the leading cause of death among both men and women, causing 23 to 24 percent of deaths within each gender in 2011. Similar proportions of deaths of both genders were caused by stroke (eight percent), chronic lower respiratory disease (six to seven percent), diabetes (three percent), and Parkinson's disease (2 to 3 percent).

A higher proportion of deaths among men was due to cancer (18.0 percent versus 11.4 percent for women). Women had higher proportions of death due to Alzheimer's disease (10.2 percent versus 6.8 percent for men).

**Table 2: Leading Causes of Death of Residents of Nursing Facilities  
by Gender, 2011**

Cause of Death	Number Female	Percent of Female Deaths	Number Male	Percent of Male Deaths
Heart Disease	3,128	23.8%	1,888	22.8%
Cancer	1,498	11.4%	1,495	18.0%
Alzheimer's Disease	1,345	10.2%	562	6.8%
Stroke	1,006	7.7%	651	7.9%
CLRD	761	5.8%	569	6.9%
Diabetes	392	3.0%	268	3.2%
Parkinson's Disease	220	1.7%	240	2.9%
Kidney Disease	243	1.9%	184	2.2%
Pneumonia	205	1.6%	125	1.5%
Hypertensive Diseases	192	1.5%	81	1.0%
<b>Total</b>	8,967	68.4%	6,106	73.7%

**Leading Causes of Death by Race/Ethnicity**

Heart disease was the leading cause of death among all racial/ethnic groups, accounting for 23.7 percent of deaths among Whites, 22.7 percent among Hispanics, 22.4 percent

among Asians, and 22.1 percent among Blacks. Cancer was the second leading cause of death among all racial/ethnic groups, accounting for 18.3 percent of deaths among Blacks, 16.3 percent among Asians, 13.6 percent among Whites, and 12.9 percent among Hispanics.

After heart disease and cancer, leading causes of death varied by race/ethnicity. As Table 3 below illustrates, Asians (18.4%) and Blacks (11.3%) had higher proportions of deaths due to stroke than Hispanics (7.7%) or Whites (7.2%). Whites (9.6%) and Hispanics (7.8%) had higher proportions of deaths due to Alzheimer's than other groups. Whites also had a higher proportion of deaths due to CLRD (7.1%).

Higher proportions of Hispanics and Blacks than other groups died due to diabetes (6.5 percent and 4.5 percent, respectively). Asians had a higher proportion of death due to stroke (14 percent), and a lower proportion of death due to Alzheimer's disease (3 percent) than other racial/ethnic groups.

**Table 3: Leading Causes of Death of Residents of Nursing Facilities by Race/ Ethnicity, 2011**

Cause of Death	Whites		Hispanics		Blacks		Asians	
	#	%	#	%	#	%	#	%
<b>Heart Disease</b>	3,906	23.7%	613	22.7%	451	22.1%	33	22.4%
<b>Cancer</b>	2,238	13.6%	350	12.9%	372	18.3%	24	16.3%
<b>Alzheimer's Disease</b>	1,576	9.6%	212	7.8%	110	5.4%	5	3.4%
<b>Stroke</b>	1,186	7.2%	207	7.7%	230	11.3%	27	18.4%
<b>CLRD</b>	1,174	7.1%	87	3.2%	65	3.2%	1	0.7%
<b>Diabetes</b>	363	2.2%	181	6.7%	104	5.1%	9	6.1%
<b>Parkinson's Disease</b>	386	2.3%	48	1.8%	21	1.0%	2	1.4%
<b>Kidney Disease</b>	277	1.7%	77	2.8%	65	3.2%	6	4.1%
<b>Pneumonia</b>	268	1.6%	43	1.6%	15	0.7%	3	2.0%
<b>Hypertensive Diseases</b>	200	1.2%	35	1.3%	35	1.7%	3	2.0%
<b>Total</b>	11,606	70.4%	1,862	68.8%	1,444	70.8%	117	79.6%

**Manner of Death**

Deaths of NF residents were classified by certifiers into one of five "manner of death" categories. Table 4 below lists these categories along with the number of deaths within each.

**Table 4: Manner of Death, 2011**

Manner of Death	Number of Deaths	Percent of Deaths
<b>Natural</b>	21,184	98.9
<b>Accident</b>	213	1.0
<b>Suicide</b>	8	.0
<b>Homicide</b>	4	.0
<b>Could not be determined</b>	4	.0
<b>Pending Investigation</b>	4	.0

Death certified as “Natural” accounted for 99 percent of deaths; these were due to natural causes such as disease. Deaths caused by accidents occurred for one percent of decedents (213 individuals). The largest proportion of accidents (85%) were falls. Other, less frequently occurring accidents included those involving motor and other transport vehicles (12% of accidents), choking (2%), and various other events (1%).

The deaths of eight individuals were the result of suicide. Another four were caused by homicide. The latter occurred in various places: one in jail, one on the street, one at the NF which was the decedent’s place of residence, and one in an unknown location.

The four deaths that were certified as "could not be determined" included three deaths involving injuries. The final death only had natural causes of death listed (primarily cancer); it appears likely that the certifying physician (physicians are not allowed to certify deaths whose cause cannot be determined) mistakenly used the category “could not be determined” instead of “natural.”

Four deaths were certified as “pending investigation.” As of March 1, 2013, the final determinations of cause and manner of death for these cases were not available.

**Autopsies**

Autopsies are typically conducted to confirm, or to obtain more complete information about, the cause of death. Autopsies were conducted for 130 (or 0.6 percent) of the 21,417 NF deaths examined in this report. As Table 5 below illustrates, among the autopsied deaths, 88 were determined to be of natural causes; 26, accidents; six, suicides; four, homicides; three could not be determined; and three were still pending investigation. (For an explanation of "could not be determined" deaths, see Manner of Death section above.)

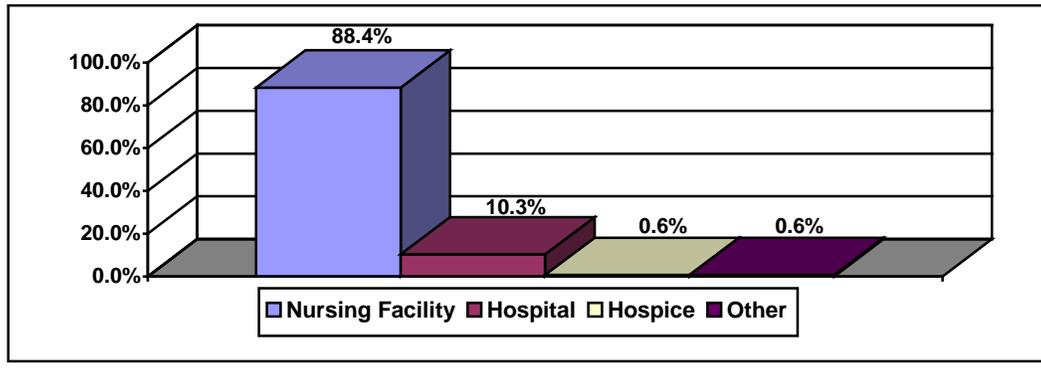
**Table 5: Autopsies by Manner of Death, 2011**

<b>Number of Autopsies Ordered</b>	<b>Manner of Death Determination</b>
88	<b>Natural</b>
26	<b>Accident</b>
6	<b>Suicide</b>
4	<b>Homicide</b>
3	<b>Could not be determined</b>
3	<b>Pending investigation</b>

**Location of Death**

As Figure 6 below shows, the majority (88 percent) of deaths of persons residing in NFs took place within the NF itself. Over ten percent of deaths occurred in a hospital, and less than two percent took place in a hospice setting or other location.

**Figure 8: Locations of Deaths of Residents of Nursing Facilities, 2011**



## SECTION II: MORTALITY IN INTERMEDIATE CARE FACILITIES FOR INDIVIDUALS WITH AN INTELLECTUAL DISABILITY OR RELATED CONDITION

### **Overall Mortality Rate**

During calendar year 2011, 755 licensed Texas ICFs/IID provided residential services to 5,538 individuals who received Medicaid services and supports.<sup>3</sup> ICF/IID providers reported the deaths of 15 of these individuals, resulting in a mortality rate of 2.7 deaths per thousand in 2011. Death certificate data was available for 12 of these deaths. The 12 deaths were reported from ten ICFs/IID: one facility reported three deaths, and nine reported a single death each.

### **Mortality and Age**

The 5,538 individuals residing in licensed Texas ICFs/IID in 2011 ranged in age from ten to 92 years. As Table 6 below shows, more than 90 percent of these individuals were between the ages of 18 and 64. Just over one percent (69 individuals) were minors; 40 percent (2,225) were 18-39 years old; 50 percent (2,785) were age 40-64; 8 percent (446) were age 65-84; and the oldest group (0.2 percent) was made up of 13 adults ages 85 – 91. The average age of all persons receiving licensed ICF/IID services through Medicaid in 2011 was 43 years.

No deaths occurred among the youngest and oldest groups of residents of ICFs/IID in 2011. The highest mortality rate (more than 11 deaths per 1,000) was among individuals 65-84 years of age.

**Table 6: Mortality Rates for Residents of Texas ICFs/IID by Age Group, 2011**

Age Group	Number of Residents	Percent of Residents	Number of Deaths	Percent of Deaths	Mortality Rate per 1,000
0-17 years	69	1.2%	0	0.0%	--
18-39 years	2,225	40.2%	1	8.3%	0.4
40-64 years	2,785	50.3%	7	58.3%	3.0
65-84 years	446	8.1%	4	33.3%	11.2
85 years +	13	0.2%	0	0.0%	--

The age at death for residents of ICFs/IID in 2011 ranged from 24-76 years. Average age at death was 57.

**Mortality and Gender**

Of the 12 individuals residing in licensed ICFs/IID who died in 2011, five were male and seven were female (out of the total population of 3,166 males and 2,422 females). Mortality rates were slightly higher for women than for men: 3.3 versus 2.2 per thousand. Average age at death for women was 62 years; for men, 49 years. Among the 5,538 residents of licensed ICFs/IID in 2011, the average age for women was 44 years; for men, 43 years.

**Mortality and Ethnicity**

As Table 7 below shows, mortality rates in 2011 ranged from 1.2 per thousand among Blacks, to 2.4 per thousand among Hispanics and Whites.

**Table 7: Mortality Rates of Racial/Ethnic Groups in Texas ICFs/IID, 2011**

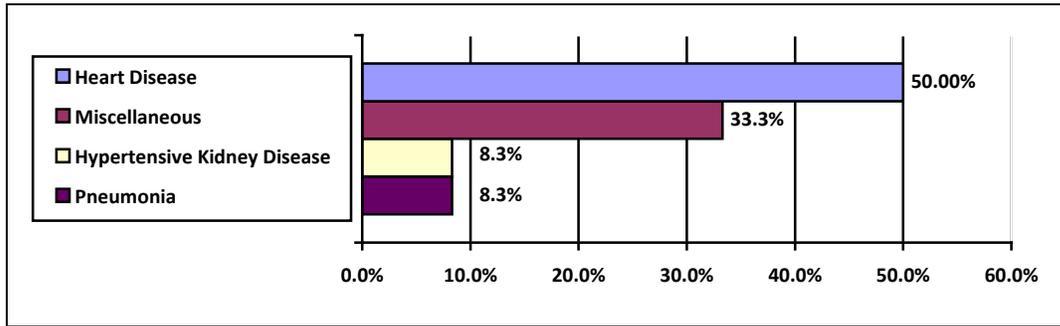
Race/Ethnicity	Number of Residents	Percent of Residents	Number of Deaths	Percent of Deaths	Mortality Rate per 1,000
White	3,692	66.7	9	75.0%	2.4
Black	823	14.9	1	8.3%	1.2
Hispanic	849	15.3	2	16.7%	2.4
Asian	55	1.0	0	0.0%	--
Other/Unknown	119	2.1	0	0.0%	--

Average age at death varied by race/ethnicity: among Whites, the average age at death was 63 years; among Hispanics, 44 years; and among Blacks, 24 years. Within ICFs/IID in 2011, the average age for Whites and Hispanics was 44, for Blacks, 42, for Asians 35, and for people of “other” ethnicity, 37.

**Leading Causes of Death**

Heart disease was the leading cause of death among individuals residing in ICFs/IID in 2011, accounting for 50% (six) of deaths. Other individual causes of death included hypertensive disease (one), pneumonia (one) and other miscellaneous less common natural causes of death (four deaths).

**Figure 7: Leading Causes of Death among Residents of Texas ICFs/IID, 2011**



**Autopsies and Manner of Death**

Among the 12 deaths of residents of ICFs/IID examined in this report, five (42 percent) were autopsied. All deaths were found to be due to natural causes.

**Location of Death**

Death certificate data show that ten deaths of persons residing in licensed ICFs/IID (83 percent of deaths) took place in a hospital. Two deaths (17 percent of deaths) occurred in the ICF/IID residence.

**SECTION III: CONCLUSION**

This report was prepared to satisfy the requirements of Texas Health and Safety Code (THSC) sections 242.134 and 252.134. The report examines official information on the deaths of persons who had resided in licensed Texas NFs and ICFs/IID during the year 2011.

Death certificate data were available for 21,417 out of the 23,981 deaths of residents of NFs, and for 12 of the 15 deaths of residents of licensed ICFs/IID that occurred during 2011. The report identifies numerous patterns of mortality including leading causes of death (overall, then by age group, gender, and race/ethnicity); manner of death; number of autopsies and their findings; and location of deaths. Leading causes of death among both groups of residents were among the leading causes of death for the general Texas population.

Future mortality reports will endeavor to identify trends among incidents of death over multiple years.

## SECTION IV: RECOMMENDATIONS

The following recommendations are made to enhance policy makers' and planners' timely access to reliable mortality data.

1. Additional meetings between DADS and DSHS data staff are recommended in order to continue to explore ways to increase the death certificate match rate. In 2010, DSHS and DADS staff were able to identify acceptable matches (both name and social security number) for only 81.5 percent of the deaths; in 2011, 89.5 percent.
2. Texas should consider implementing reviews to ensure that death certificates are completed by the correct types of certifiers and to identify certifiers who require additional training. The Texas Vital Statistics *Handbook on Death Registration* stipulates that only medical examiners and justices of the peace should certify causes of death that are other than natural. In 2011, however, 12 physicians who were not medical examiners or justices of the peace certified 11 deaths caused by accidents and one death whose cause could not be determined.

## ENDNOTES

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<sup>1</sup> Texas Department of State Health Services, Vital Statistics Unit. *Handbook on Death Registration*. Retrieved 2/15/13 from <http://www.dshs.state.tx.us/vs/handbooks/death/deathbk1.shtm#general>. Despite the stipulation that physicians should only certify “natural” deaths, physicians certified eleven deaths that were “accidents,” and one death of which the cause “could not be determined.”

<sup>2</sup> See the Texas Department of State Health Services Vital Statistics Units annual reports available at: <http://www.dshs.state.tx.us/chs/vstat/annrpts.shtm>. As of March 1, 2013, the 2010 mortality report was the latest complete report available: <http://www.dshs.state.tx.us/chs/vstat/vs10/nmortal.shtm>. In 2010, the ten leading causes of death in Texas in 2010 were: heart disease, cancer, cerebrovascular diseases (stroke), accidents, chronic lower respiratory diseases, Alzheimer’s disease, diabetes mellitus, nephritis and related diseases, septicemia, and influenza/pneumonia.

<sup>3</sup> No data like that of the Minimum Data Set (the federally-mandated assessment of all residents of nursing facilities) is gathered on all persons residing in ICFs. Existing data sets on ICF residents contain information only on those residents who receive Medicaid services and supports. Data on individuals supported by private pay are not collected.