

2010 NEW MEXICO EMERGENCY DEPARTMENT DATA REPORT

**Morbidity Surveillance Program
Epidemiology and Response Division
New Mexico Department of Health**

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The New Mexico Department of Health

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ACKNOWLEDGEMENTS

The 2010 Emergency Department Data report was produced by the New Mexico Department of Health (NMDOH) Epidemiology and Response Division. The NMDOH would like to specifically acknowledge the Emergency Department Data Group and Emergency Department Analysis Group for their help in the development of this report.

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Sources of Data

New Mexico Emergency Department Data: The emergency department (ED) visit data were collected from New Mexico non-federal licensed facilities by requesting data on the first five diagnoses for ED visits during calendar year 2010. Causes for ED visits were coded using International Classification of Diseases (ICD) codes.

State Population Estimates: State population estimates used for the denominator in admission rates were generated by the NM Population Estimates, Geospatial and Population Studies (GPS) Program, University of New Mexico. The GPS evaluates all input data and employs a housing unit-based methodology, validated by building permits and birth/death records. Population denominators for 2010 were used. Rates were age-adjusted to the 2000 U.S. standard population, when indicated.

Definitions: Definitions for diagnoses presented in this report may be found at <http://icd9.chrisendres.com>.

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EXECUTIVE SUMMARY

The New Mexico Public Health Act grants the New Mexico Department of Health the authority to “Investigate, control and abate the cause of disease” (Section 24-1-3C). Additional authority was enacted (NMAC 7.4.3.10) on April 30, 2009, which specifically requires that all non-federal emergency departments in the State of New Mexico must comply with NMDOH requests for emergency department (ED) data. New Mexico ED visit data are collected from individual non-federal licensed facilities in the state as reportable conditions. The NMDOH gives the highest priority to the collection of data to support informed health care decision-making and community interventions throughout the state.

The approaches to emergency department data acquisition in New Mexico have been going through many changes in design, approach, authority, and mechanisms. The next approach is being piloted through the New Mexico Health Information Collaborative (NMHIC) exchange as part of the E-Reporting project. Ultimately, the E-Reporting project will collect a wider array of information on all ED visits. Current ED data acquisition has been conducted through letters of request for limited information on all ED visits as an extension of earlier processes to gather information on specific diagnosis categories. For example, initial requests for ED data included asthma, firearm and drug overdose data. Requests were then expanded to include acute myocardial infarctions (MI), heat stress, and carbon monoxide, pesticide and disinfectant poisonings. Specifically, prior to the NMHIC E-Reporting, individual non-federal licensed facilities were contacted by letter requesting 1) limited electronic information on asthma visits, firearm and drug overdose 2001-2007, 2) electronic information on six selected conditions appearing in any diagnosis field of the resident information systems at those same facilities, 2008-2009, and then 3) electronic information for all visits with limited information including the first five diagnoses fields, 2010. The 2010 ED data acquisition was seen as a simplification for the reporting facilities and as being compliant with new reporting requirements of Notifiable Conditions, 7.4.3.10 NMAC. As a consequence of the changing designs and requests, comparisons between 2010 and earlier data may be problematic.

This report presents overall New Mexico emergency department admission numbers, rates by age, sex and region for NM residents. In 2010, 35 emergency departments reported emergency department data to the NMDOH.

Of the 643,539 reported discharges, approximately 55 percent were among females and 45 percent were among males. Twelve percent of all discharges occurred among residents over the age of 65 years. The Metro Region had the highest percent of New Mexico ED admissions (31%).

OVERALL EMERGENCY DEPARTMENT ADMISSIONS

Table 1. Number of Emergency Department Visits and Percent Distribution by Age Group, New Mexico, 2010

Age Group	Number of Visits	Percent of Visits
Less than 1 year	21,408	3.3
1-4 years	48,090	7.5
5-14 years	59,328	9.2
15-24 years	111,512	17.3
25-34 years	106,023	16.5
35-44 years	81,293	12.6
45-54 years	77,487	12.0
55-64 years	54,674	8.5
65-74 years	37,280	5.8
75-84 years	29,524	4.6
85+ years	15,207	2.4
Unknown	1,743	0.3

Table 2. Number of Emergency Department Visits and Percent Distribution by Region Residence, New Mexico, 2010

Region	Number of Visits	Percent of Visits
Northwest	91,560	14.2
Northeast	97,005	15.1
Metro	199,196	31.0
Southeast	117,056	18.2
Southwest	124,662	19.4
Unknown	14,090	2.2

Table 3. Number of Emergency Department Visits and Percent Distribution by Sex, New Mexico, 2010

Sex	Number of Visits	Percent of Visits
Male	291,579	45.3
Female	351,974	54.7
Unknown	16	0.0

Table 4. Number of Visits and Rates by Category of First-listed Diagnosis and Sex, New Mexico, 2010

Category of First Listed Diagnosis	Diagnosis Codes (ICD-9-CM Codes)	Number of Males	Number of Females	Total Rate	Male Rate	Female Rate
Infectious and Parasitic Diseases	000-139	736	1,063	89.5	73.3	106.1
Neoplasms	140-239	373	512	42.3	36.8	48.5
Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders	240-279	4,781	4,937	478.2	489.4	465.1
Diseases of the Blood and Blood-Forming Organs	280-289	564	776	65.9	56.8	74.9
Mental Disorders	290-319	18,456	13,304	1,632.8	1,915.4	1,353.6
Diseases of the Nervous System and Sense Organs	320-389	16,993	22,983	2,009.7	1,696.5	2,323.9
Diseases of the Circulatory System	390-459	7,217	7,426	699.7	739.6	661.5
Diseases of the Respiratory System	460-519	26,374	32,416	2,906.1	2,593.2	3,220.8
Diseases of the Digestive System	520-579	17,177	20,763	1,905.2	1,755.2	2,059.0
Diseases of the Genitourinary System	580-629	8,566	26,292	1,756.6	883.8	2,650.9
Complications of Pregnancy, Childbirth, and Puerperium	630-677	2*	13,072	659.0	0.2	1,344.2
Diseases of the Skin and Subcutaneous Tissue	680-709	10,974	11,311	1,127.4	1,118.8	1,136.6
Diseases of the Musculoskeletal System and Connective Tissue	710-739	17,082	21,602	1,951.4	1,767.9	2,125.2
Congenital Anomalies	740-759	169	201	18.4	16.3	20.4
Certain Conditions Originating in the Perinatal Period	760-779	397	444	39.7	36.4	43.1
Symptoms, Signs, and Ill-Defined Conditions	780-799	60,322	86,504	7,308.1	6,107.2	8,513.80
Injury and Poisoning	800-999	82,584	72,301	7,817.4	8,411.0	7,177.0
Supplementary Classifications	V01-V84	11,128	9,173	1,020.7	1,129.6	914.8
Ungroupable		513	535	52.0	51.4	52.4

Age-Adjusted to Standard US 2000 population; ED visits per 100,000 population

**Sex as reported by the Emergency Department*

Table 5. Number of Visits by Category of First-listed Diagnosis and Age Group, New Mexico, 2010

Category of First Listed Diagnosis	Less than 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	Total
Infectious and Parasitic Diseases	196	212	225	324	282	179	163	124	71	31	16	1,823
Neoplasms	2	12	20	49	82	106	159	156	139	129	43	897
Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders	77	277	361	820	1,185	1,409	1,691	1,590	1,192	956	418	9,976
Diseases of the Blood and Blood-Forming Organs	17	66	142	130	151	157	174	147	153	127	94	1,358
Mental Disorders	9	40	1,020	6,073	6,877	6,801	6,501	3,171	1,024	585	354	32,455
Diseases of the Nervous System and Sense Organs	2,337	6,435	5,649	5,497	6,301	4,736	4,186	2,593	1,471	960	431	40,596
Diseases of the Circulatory System	25	18	76	476	903	1,423	2,301	2,699	2,845	2,818	1,423	15,007
Diseases of the Respiratory System	5,273	10,586	8,373	8,686	7,066	4,997	4,774	3,674	2,937	2,104	962	59,432
Diseases of the Digestive System	1,097	2,083	2,449	6,378	7,577	5,455	4,944	3,439	2,331	1,862	955	38,570
Diseases of the Genitourinary System	287	1,027	1,617	8,719	7,639	4,754	3,635	2,713	2,216	1,878	1,042	35,527
Complications of Pregnancy, Childbirth, and Puerperium			42	7,415	4,789	954	20	1				13,221
Diseases of the Skin and Subcutaneous Tissue	584	1,805	1,912	4,272	4,346	3,179	2,941	1,692	996	683	315	22,725
Diseases of the Musculoskeletal System and Connective Tissue	76	417	1,375	5,149	7,662	6,916	7,188	4,685	2,887	2,181	1,004	39,540
Congenital Anomalies	37	83	58	95	33	25	18	11	7	6	1	374
Certain Conditions Originating in the Perinatal Period	603	53	43	69	35	6			1			810
Symptoms, Signs, and Ill-Defined Conditions	7,717	10,989	11,592	21,840	22,262	18,796	18,959	14,528	10,460	8,282	3,952	149,377
Injury and Poisoning	2,159	12,108	22,361	31,266	25,324	18,641	17,244	11,839	7,536	6,120	3,813	158,411
Supplementary Classifications	858	1,721	1,884	4,063	3,347	2,653	2,510	1,526	971	766	365	20,664
Ungroupable	54	158	129	191	162	106	79	86	43	36	19	1,063

Table 6. Emergency Department Visit Rates by Category of First-listed Diagnosis and Health Region, New Mexico, 2010

Category of First Listed Diagnosis	NM Rate	Northwest	Northeast	Metro	Southeast	Southwest
Infectious and Parasitic Diseases	89.5	38.5	70.5	31.8	81.7	66.7
Neoplasms	42.3	77.4	168.9	59.0	107.4	85.4
Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders	478.2	43.4	32.3	28.3	83.0	48.8
Diseases of the Blood and Blood-Forming Organs	65.9	574.1	443.0	325.4	760.6	542.5
Mental Disorders	1,632.8	70.5	56.8	53.6	114.0	58.5
Diseases of the Nervous System and Sense Organs	2,009.7	1,766.6	2,221.1	1,551.7	1,326.9	1,335.4
Diseases of the Circulatory System	699.7	2,366.1	1,984.6	1,139.4	3,341.8	2,644.4
Diseases of the Respiratory System	2,906.1	797.8	533.1	452.4	1,214.3	888.7
Diseases of the Digestive System	1,905.2	3,541.8	3,544.0	1,785.2	4,683.3	3,017.7
Diseases of the Genitourinary System	1,756.6	1,953.1	2,000.8	1,220.1	3,404.1	2,160.9
Complications of Pregnancy, Childbirth, and Puerperium	659.0	1,929.7	1,792.2	1,362.0	2,308.4	1,997.8
Diseases of the Skin and Subcutaneous Tissue	1,127.4	834.0	737.8	441.9	1,014.3	706.0
Diseases of the Musculoskeletal System and Connective Tissue	1,951.4	1,193.5	1,262.2	813.9	1,675.8	1,195.0
Congenital Anomalies	18.4	2,635.0	2,232.0	1,566.8	2,256.6	1,824.8
Certain Conditions Originating in the Perinatal Period	39.7	18.9	18.9	13.7	29.2	17.5
Symptoms, Signs, and Ill-Defined Conditions	7,308.1	66.3	52.6	25.2	58.0	27.8
Injury and Poisoning	7,817.4	12,069.7	7,540.7	5,705.0	7,352.3	7,257.3
Supplementary Classifications	1,020.7	9,214.8	9,630.5	5,265.4	10,390.7	8,799.8
Ungroupable	52.0	1,028.3	1,138.8	789.0	974.3	1,408.0

Age-Adjusted to Standard US 2000 population; ED visits per 100,000 population

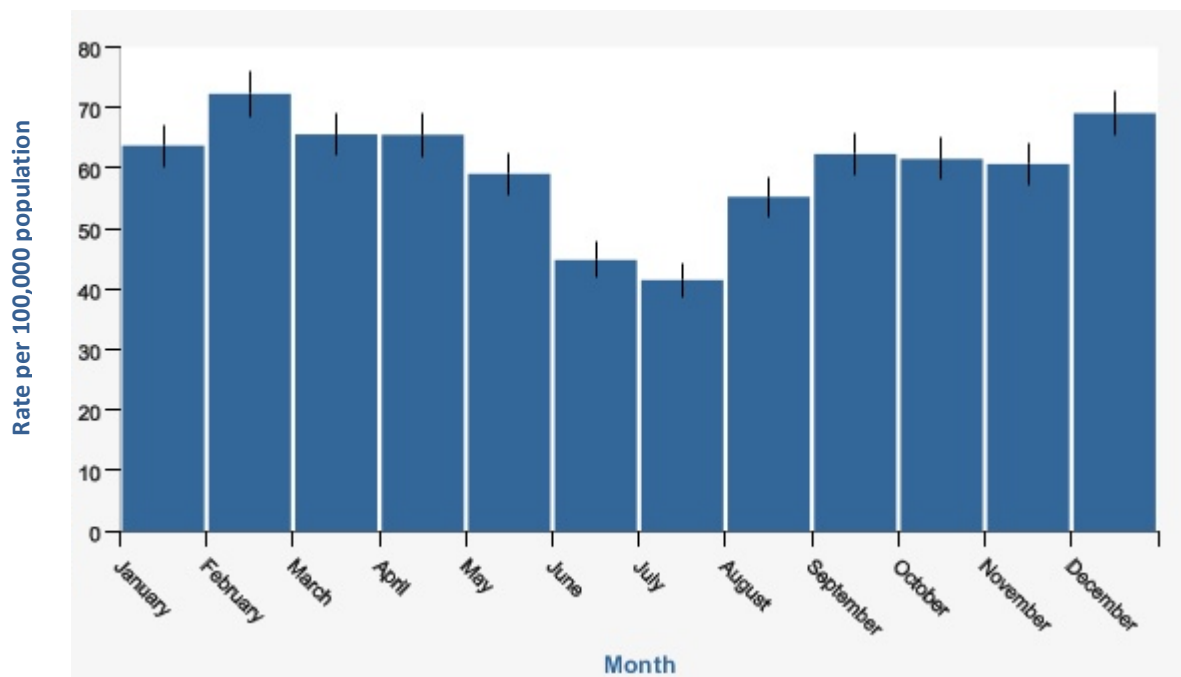
SPECIFIC CATEGORIES OF DISEASE AND INJURY

Environmental Health Related Admissions

Asthma

Asthma is a chronic inflammatory disease of the airways characterized by wheezing, coughing, breathlessness, and chest tightness. Asthma symptoms can be triggered by allergens (substances that cause an allergic response) or irritants (substances that irritate the nose or airways provoking asthma symptoms), such as animal dander, air pollution, pollen, exercise, cold air, or stress. The asthma ICD-9-CM codes are 493.0-493.92.

Figure 1. Asthma ED Visit by Month, New Mexico, 2010



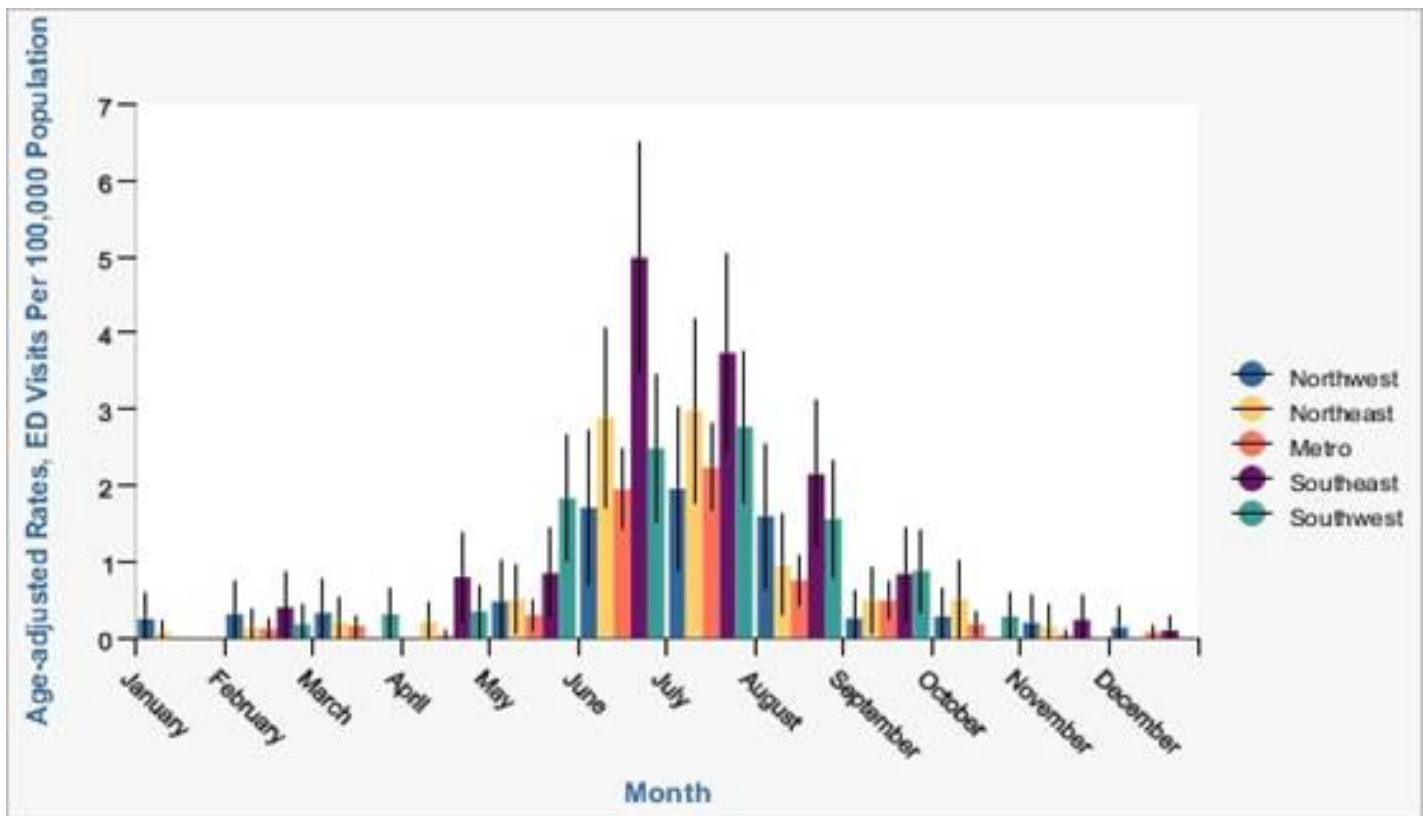
Age-Adjusted to Standard US 2000 population; ED visits per 100,000 population

*In 2008 and 2009, ED's were asked to report all diagnoses; however in 2010 ED's reported only five diagnoses which may have caused the discrepancy between 2008-2009 and 2010 asthma rates

Heat Stress

Heat stress is a constellation of explicit effects of hot weather on the body, including heat stroke and sunstroke (hyperthermia), heat syncope or collapse, heat exhaustion, heat cramps, heat fatigue, heat edema, and other unspecified clinical effects attributed to excessive heat exposure. Other conditions such as heat exhaustion may progress to heat stroke, the most serious form of heat-related disease, which if untreated can result in death or permanent neurological impairment. Cases of heat stress were classified as any diagnosis included in the range of ICD-9-CM 992.0-992.9 or cause of injury codes E900.0 and E900.9. However, cases with a code of E900.1 (man-made source of heat) anywhere in the patient medical record were excluded.

Figure 2. Heat Stress ED Visit Rates by Month and New Mexico Health Region of Residence, 2008-2010



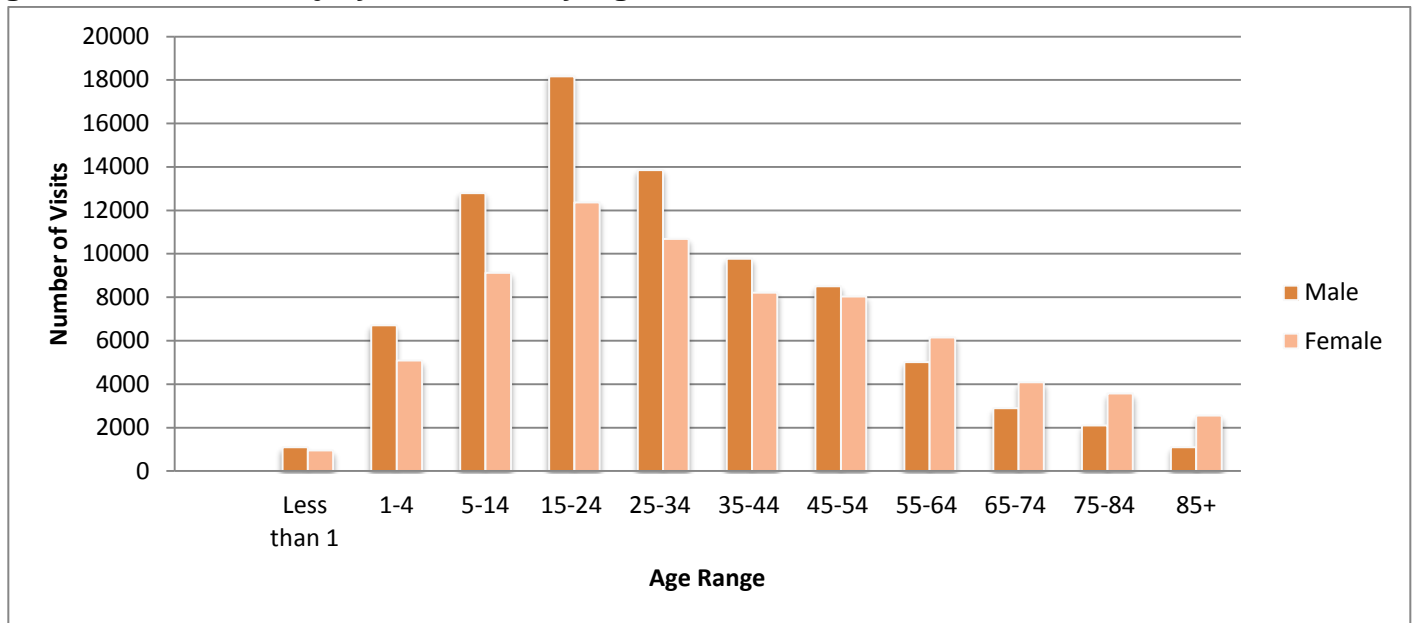
Age-Adjusted to Standard US 2000 population; ED visits per 100,000 population

*In 2008 and 2009, ED's were asked to report all diagnoses; however in 2010 ED's reported only five diagnoses which may have cause the discrepancy between 2008-2009 and 2010 heat stress rates

Injury and Poisoning Admissions

All types of injuries result in ED admissions (e.g. fractures, open wounds, burns) as well as poisonings from various sources, such as overdoses from illicit drugs or prescription medications. The injury and poisoning ICD-9-CM codes are 800.0-999.0.

Figure 3. Number of Injury* ED Visits by Age and Sex, New Mexico, 2010



*ICD-9-CM codes used: 800-909.2, 909.4, 909.9-994.9, 995.5-995.59, 995.80-995.85, as per Center for Disease Control and Prevention Standard

Table 7. Number and Rate of Injury ED Visits by Mechanism/Intent and Sex, New Mexico, 2010

Reason for ED Visit	Male		Female		Total	
	Number	Age-Adjusted Rate	Number	Age-Adjusted Rate	Number	Age-Adjusted Rate
Unintentional						
All Unintentional Injury	48,192	4,804.1	43,935	4,242.5	92,133	4,539.4
Drowning	18	1.8	10	1.0	28	1.4
Fall	13,464	1,346.6	15,984	1,484.6	29,452	1,427.8
Fire	204	20.2	117	11.5	321	15.8
Firearm	100	9.8	13	1.4	113	5.7
Motor Vehicle Traffic	4,975	492.2	5,680	560.0	10,655	525.5
Occupant	3,550	351.5	4,851	478.3	8,401	414.2
Motorcycle	540	53.7	126	12.5	666	33.1
Pedal Cycle	128	12.7	27	2.7	155	7.6
Pedestrian	280	27.3	193	19.1	473	23.2
Unspecified	440	43.4	461	45.2	901	44.4
Poisoning	977	95.8	1,013	99.0	1,990	97.6
Struck By, Against	7,218	712.8	4,330	428.4	11,549	573.0
Intentional						
Assault	4,111	415.6	2,730	280.1	6,842	348.2
Firearm	53	5.2	7	0.7	60	3
Self-inflicted	939	94.8	1,209	123.8	2,148	109.1

Age-Adjusted to Standard US 2000 population; ED visits per 100,000 population

Figure 4. Number of Injury ED Visits by Injury Category and Sex, New Mexico, 2010

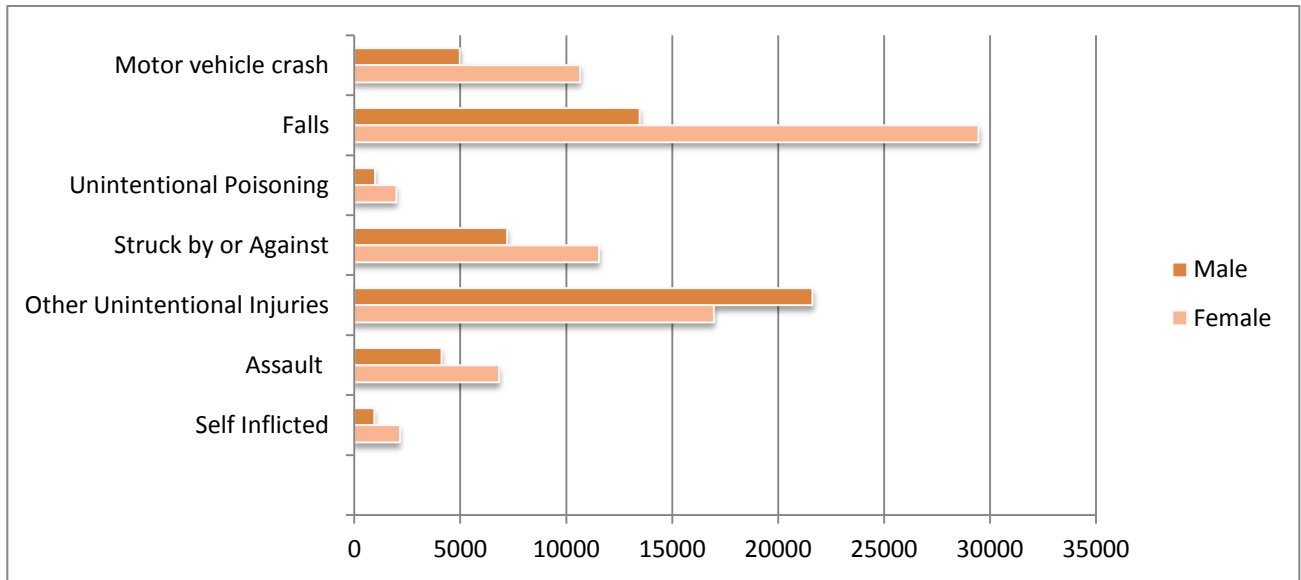
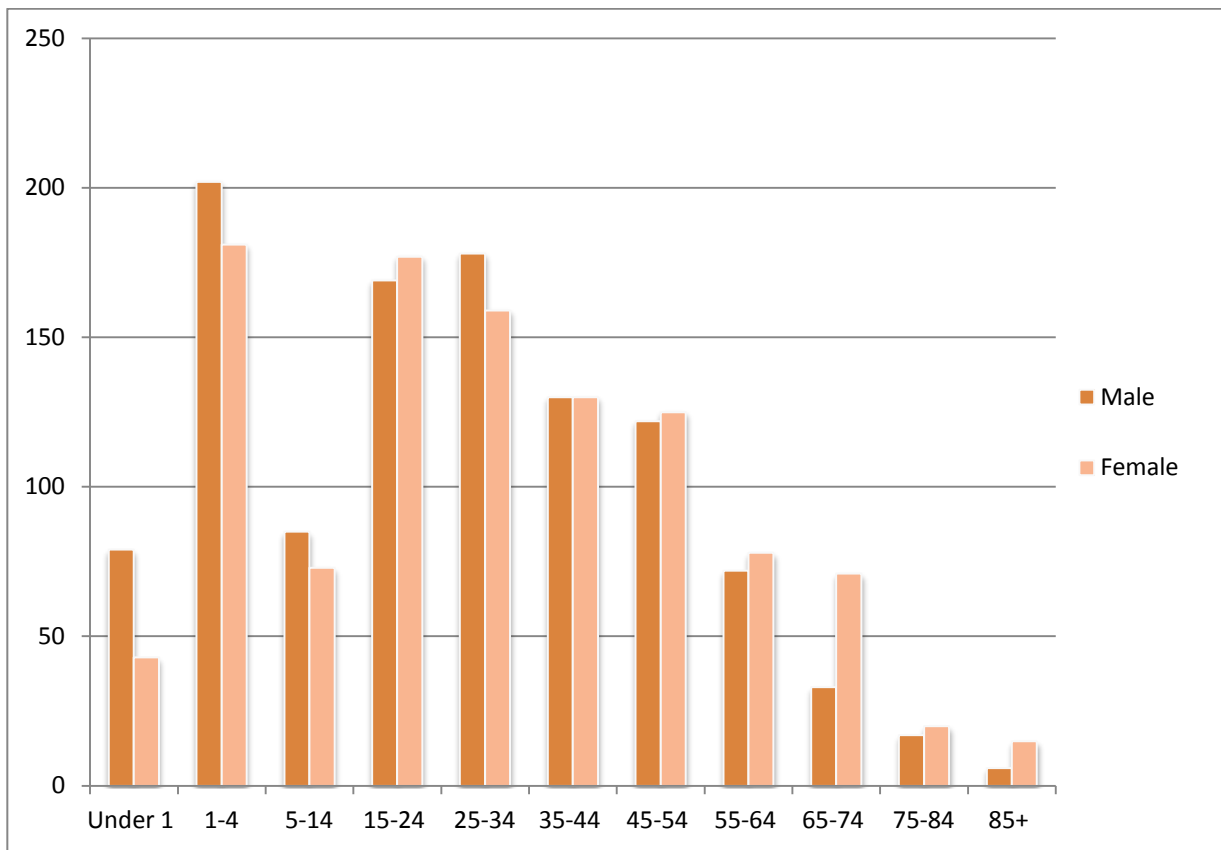


Figure 5. Number of Unintentional Poisoning ED Visits by Age and Sex, New Mexico, 2010



Assault and Firearm Injury

Assault injuries were defined by ICD-9-CM codes E960-E969. Firearm injuries were defined by the following ICD-9-CM codes: E992[.0-.3, .8, .9] (unintentional); E955[.0-.4] (intentional self-inflicted); E965[.0-.4], E979.4 (assault); E985[.0-.4] (undetermined); and E970 (injury due to legal intervention by firearms).

Figure 6. Assault ED Visit Rates by Sex and Age Group, New Mexico, 2010

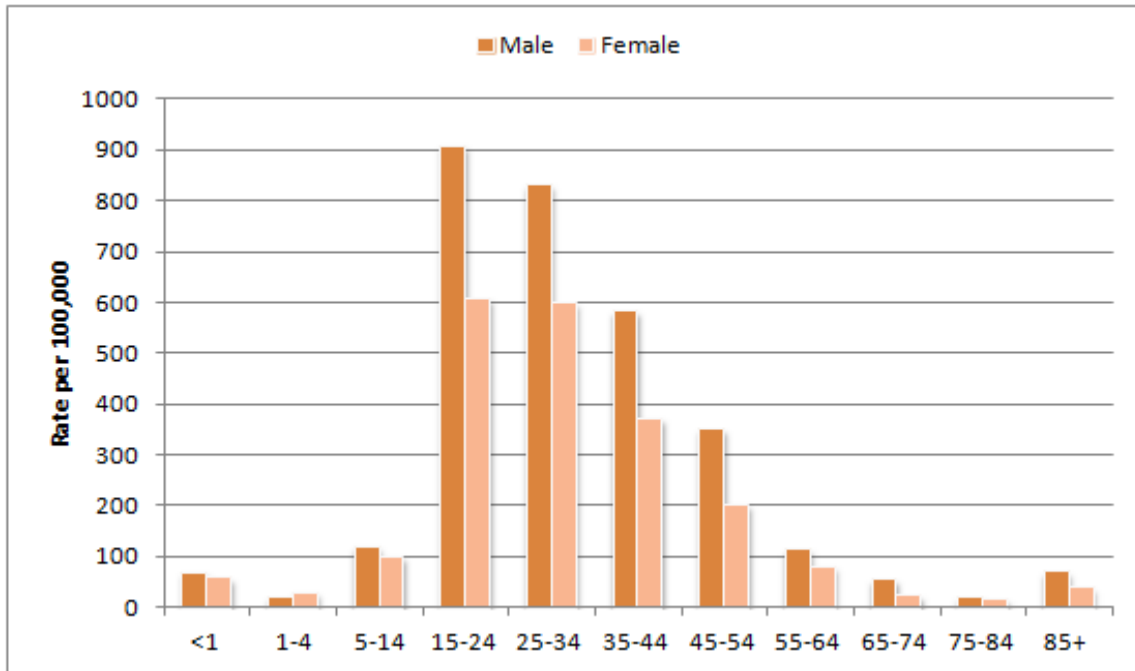


Figure 7. Proportion of Firearm Related Injury by Manner/Intent, New Mexico, 2010

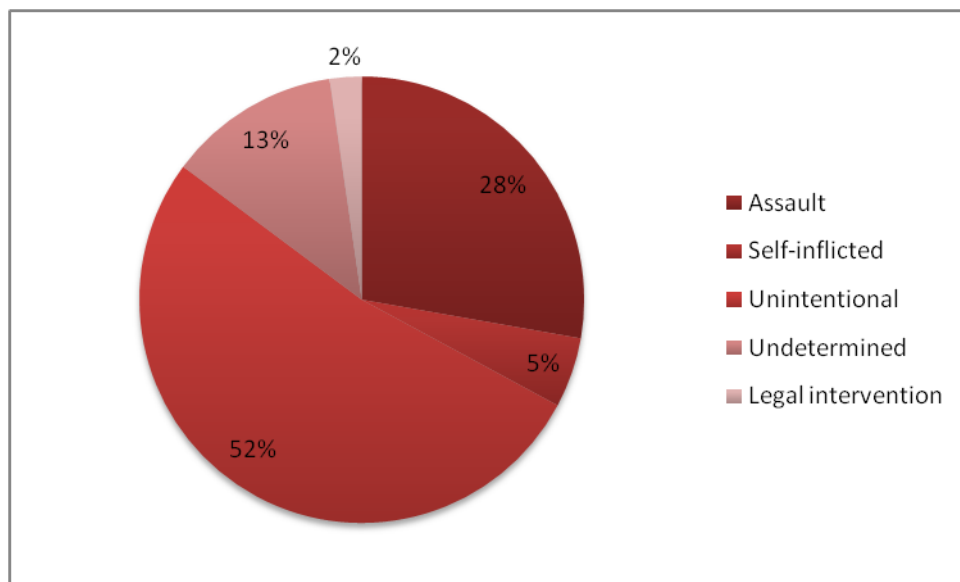
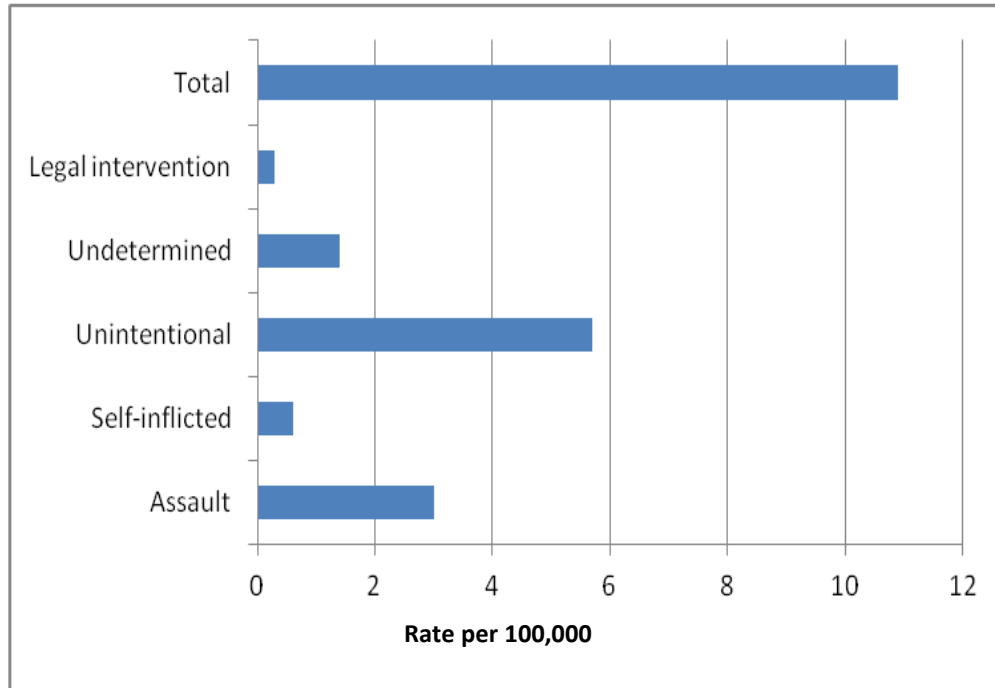
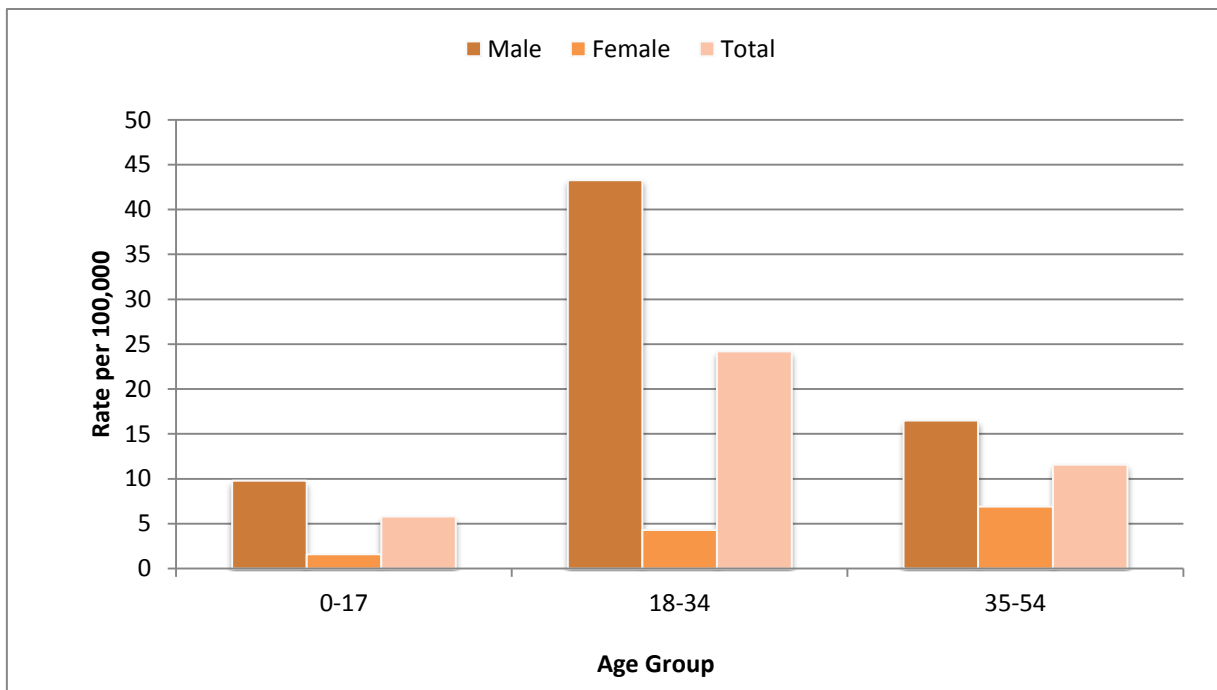


Figure 8. Firearm Injury ED Visit Rates by Manner/Intent, New Mexico 2010



Age-Adjusted to Standard US 2000 population; ED visits per 100,000 population

Figure 9. Firearm Injury ED Visit Rates by Sex and Age Group, New Mexico, 2010



METHODS

The collection of New Mexico ED data is authorized by Notifiable Conditions, 7.4.3.10 NMAC, which requires emergency departments to submit data when requested by the NMDOH. The 2010 ED data was requested via letter from all non-federal New Mexico emergency departments. This excludes any visits of New Mexico residents to non-New Mexico emergency departments, Indian Health Service (IHS) facilities and the Veterans Affairs (VA) Hospital.

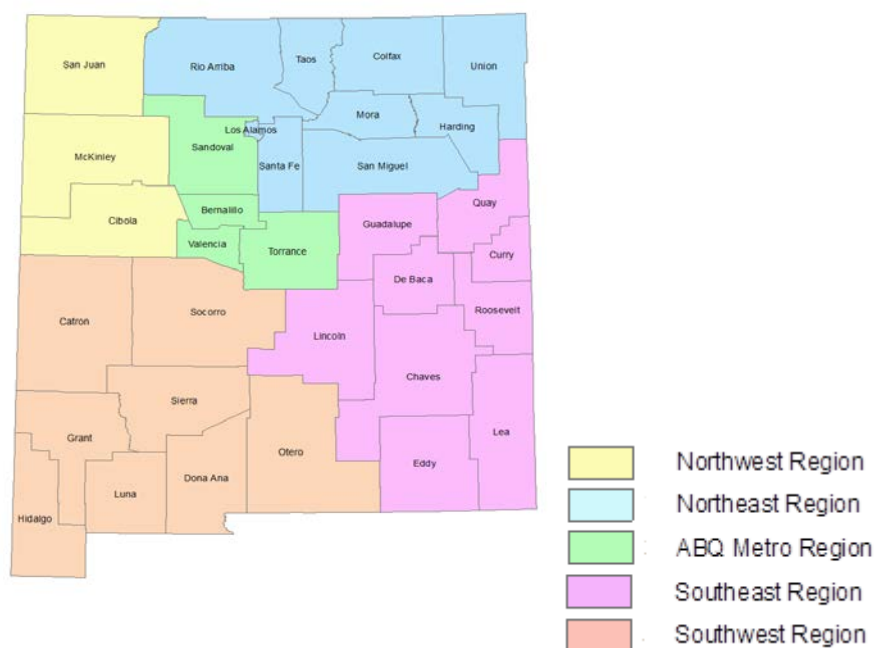
Emergency departments were only asked to report the first five diagnoses rather than all diagnoses, thereby occluding detection of indicators that apparently appear in some information systems beyond the first five diagnoses fields. These data contain diagnoses that were coded using the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and include all patients with an ED visit, but do not include those who were admitted and/or transferred to another facility.

In this report, rates were calculated using the New Mexico 2010 population estimates, determined by NM Population Estimates, Geospatial and Population Studies (GPS) Program, University of New Mexico. All age-adjusted rates were standardized to the Standard US 2000 Population. Rates are per 100,000 population.

This report is intended to be a reference document for researchers and planners and does not include interpretation or hypotheses. Although data were verified with the submitting hospital, all data and information presented in this report are as submitted by reporting emergency departments to the NMDOH.

NEW MEXICO HEALTH REGIONS

The data in this report are presented by age, sex, and New Mexico Health Regions. Below is a map of the Health Regions.



NEW MEXICO EMERGENCY DEPARTMENTS REPORTING DATA IN 2010

Emergency Departments
Alta Vista Regional Hospital
Artesia General Hospital
Carlsbad Medical Center
CHRISTUS St. Vincent Regional Medical Center/Physician's Medical Center of Santa Fe
Cibola General Hospital
Dr. Dan C Trigg Memorial Hospital
Eastern NM Medical Center
Espanola Hospital
Gerald Champion Regional Medical Center
Gila Regional Medical Center
Guadalupe County Hospital
Holy Cross Hospital
Lea Regional Hospital
Lincoln County Medical Center
Los Alamos Medical Center
Lovelace Medical Center/Heart Hospital of NM
Lovelace Westside Hospital
Lovelace Women's Hospital

Emergency Departments
Lovelace Women's Hospital
Memorial Medical Center
Mimbres Memorial Hospital
Miners' Colfax Medical Center
Mountain View Regional Medical Center
Nor-Lea General Hospital
Plains Regional Medical Center - Clovis
Presbyterian Hospital
Presbyterian Kaseman Hospital
Presbyterian Rio Rancho Emergency Center
Rehoboth McKinley Christian Health
Roosevelt General Hospital
Roswell Regional Hospital
San Juan Regional Medical Center
Sierra Vista Hospital
Socorro General Hospital
Union County General Hospital
UNM Hospital

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