

# Profile of Myeloma Cases in Arizona



## Data from the Arizona Cancer Registry

The Arizona Cancer Registry collects, manages and analyzes information on the incidence, survival and mortality of persons diagnosed with cancer. Arizona's hospitals, clinics, and doctors submit reports of the more than 27,000 new cancer cases annually. The central cancer registry merges these case reports to accurately count each case and generate the trends and demographic profiles about the various types of cancer.

*Myeloma*<sup>1</sup> is one of the many types of cancer tracked by the central registry. This data sheet characterizes Arizona residents diagnosed with multiple myeloma (the most common form) and two other less common forms of plasma cell malignancy. Data are based upon the case reports submitted to the central cancer registry as of December 2013.

### Data highlights for myeloma

- The count of newly diagnosed myeloma cases in 2011 was 380 (Table 1).

### Gender

- For every 4 cases among males there are 3 cases among females.
- The new case rate has averaged 5.5 cases per 100,000 males, and 3.5 cases per 100,000 females during the past 17 years (Figure 1). The state's incidence rates of newly diagnosed cases are relatively stable across time.

### Age

- Incidence of myeloma increases with age: 66% of Arizona cases are diagnosed in persons age 65 or older (Figure 2). Younger age adults also are diagnosed with myeloma.

Table 1. Count of newly diagnosed cases of myeloma in Arizona residents

Diagnosis Year	Male	Female	Total
1995	95	83	178
1996	93	93	186
1997	121	92	213
1998	120	95	215
1999	112	97	209
2000	87	74	161
2001	148	96	244
2002	137	90	227
2003	138	81	219
2004	152	125	277
2005	153	117	270
2006	140	137	277
2007	166	141	307
2008	178	104	282
2009	188	129	317
2010	204	142	346
2011	207	173	380
<b>Total</b>	<b>2,439</b>	<b>1,869</b>	<b>4,308</b>

Figure 1. AZ Myeloma, age-adjusted incidence rate (per 100,000 population)

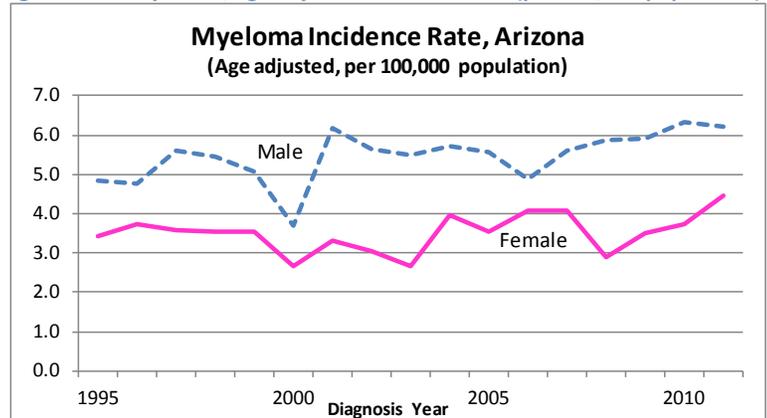
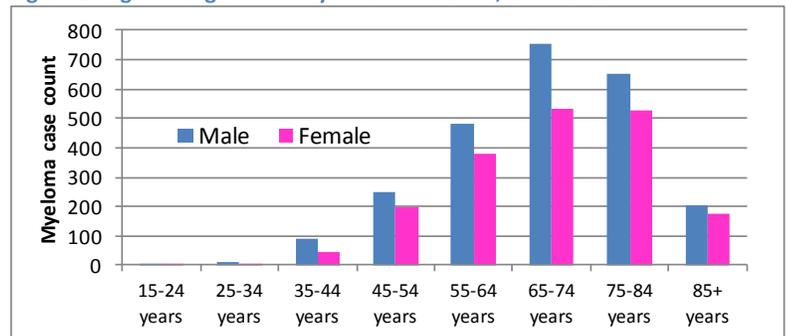


Figure 2. Age at diagnosis of myeloma in Arizona, 1995-2011



<sup>1</sup> ICD-O-3 histology code 9731 (plasmacytoma), 9732 (multiple myeloma), or 9734 (extramedullary plasmacytoma).

## Race and ethnic groups

- Myeloma occurs among all race and ethnic groups (Table 2). The state's race composition is mostly White, and most of the diagnosed cases also occur among this population.

- But, the incidence rate of myeloma is highest among Arizona's African American and American Indian population (Figure 3).

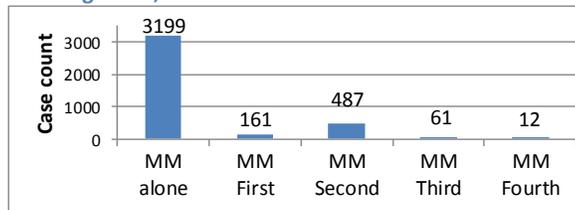
## Geographic distribution

- Myeloma cases are reported from all 15 of Arizona's counties (Figure 4). The highest count each year is reported from Maricopa County (where most of the population lives).

## Other cancers

- One in six persons with Multiple Myeloma (ICD-O 9732) may have another cancer (Figure 5). The other cancer may occur before or after a diagnosis of multiple myeloma.

Figure 5. Sequence of when multiple myeloma (MM) was diagnosed, 1995-2011



## Mortality

- In the year 2011 there were 206 Arizonans who died of multiple myeloma (Table 3).

Table 3. Count of Arizonan residents with multiple myeloma (C90.0) listed as the underlying cause of death

Year	Count of Deaths
2007	193
2008	195
2009	182
2010	196
2011	206

## Survival

- Adjusted for age, the 3-year relative survival rate was 47% for multiple myeloma cases diagnosed between 2006-2011.

## More cancer data

<http://www.azdhs.gov/phs/phstats/acr/index.htm>  
<http://seer.cancer.gov/canques/incidence.html>  
<http://statecancerprofiles.cancer.gov>  
<http://faststats.naaccr.org>



Table 2. Sum of diagnosed cases by race and ethnic group, 1995-2011

Race	Male	Female	Total
White, Non Hispanic	1950	1465	3415
White, Hispanic	227	199	426
Black	126	81	207
American Indian	97	101	198
Asian/Pacific Islander	15	15	30
Other	24	8	32
Total	2439	1869	4308

Figure 3. Rate of myeloma by race and ethnic group, Arizona, 1995-2011

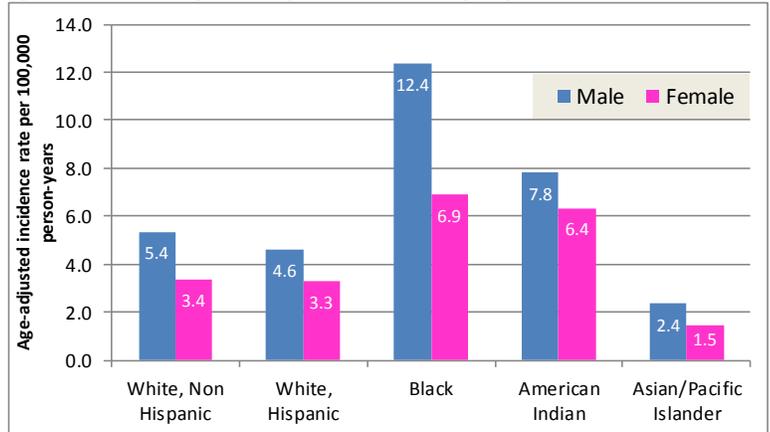
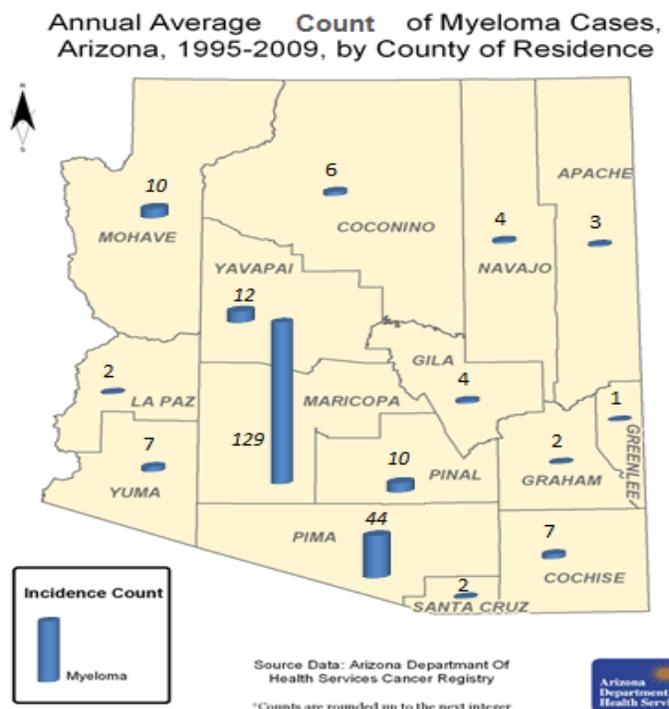


Figure 4. Yearly count of newly diagnosed myeloma cases



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