



1C.
FETAL, PERINATAL AND MATERNAL DEATHS

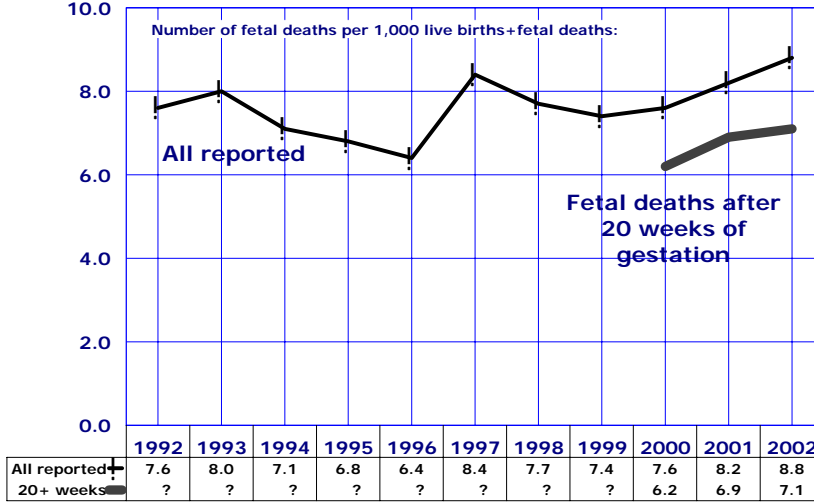
In Arizona, reportable fetal deaths are those after 20 completed weeks of gestation or, if the gestational period is unknown, the fetal death certificate should be filed if the fetus weighs 350 grams or more (*Arizona Administrative Code, R9-19-302*). In addition to spontaneous stillbirths, any induced termination of pregnancy at 20 or more weeks of gestation also requires the filing of a fetal death certificate.

It is only beginning with the year 2000 that information about the gestational age of a fetus became available in the electronic database of fetal deaths in Arizona. For the first time the users of the health statistical information about fetal deaths were able to realize that a rather surprising number of fetal death certificates included by the Office of Vital Records in the annual data sets of fetal deaths for 2000 (118 out of 652 reported) did not meet the requirement of 20 or more weeks of gestation. The inclusion of selected early fetal deaths at less than 20 weeks of gestation seriously undermines the homogeneity and integrity of the fetal deaths database. The fetal deaths data for 2001 and 2002 also include some early stillbirths (**Table 1C-3**), which, formally, are not required to be reported in the State.

It is not possible to identify the gestational age of fetal deaths prior to 2000 but it seems that the practice of including stillbirths at less than 20 weeks of gestation had begun in 1997 effecting a rather substantial increase in the number of annually reported fetal deaths in Arizona (**Figure 1C-1, Table 1C-3**).

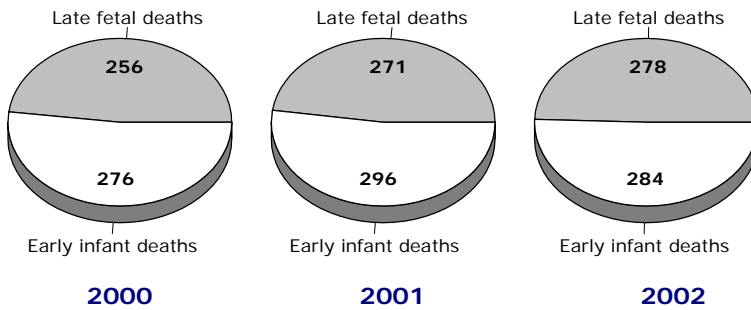
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Figure 1C-1
Trends in Fetal Death Ratios, Arizona, 1992-2002



The number of all reported fetal deaths in Arizona in 2002 was 772 compared to 703 in 2001 (Table 1C-3). The ratio, calculated for fetal deaths known to be of 20 or more weeks of gestation increased by 2.9 percent from 6.9 fetal deaths per 1,000 live births and fetal deaths in 2001, to 7.1/1,000 in 2002 (Figure 1C-1, Table 1C-3). All ratios are calculated per 1,000 live births + fetal deaths. No information about gestational age was provided in the fetal death database prior to 2000).

Figure 1C-2
Changes in Perinatal* Mortality, Arizona, 2000-2002



Perinatal mortality refers here to death of a fetus of at least 28 weeks gestational age or of an infant less than 7 days old. The perinatal death ratio per 1,000 live births and fetal deaths, decreased from 6.6 in 2001 to 6.4 in 2002 (Figure 1C-2, Table 1C-3).

Fetal deaths accounted for 278 or 49.5 percent of 562 perinatal deaths in 2002.

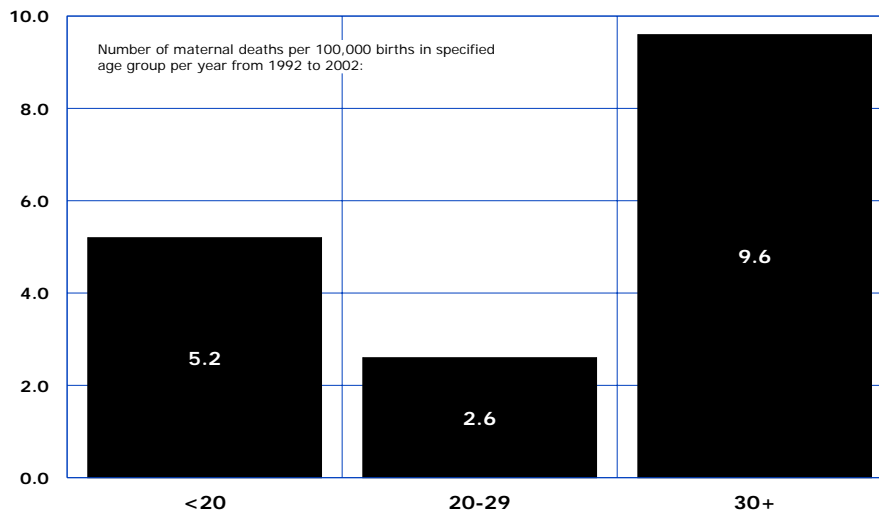
*Fetal deaths of 28 or more weeks of gestation + infant deaths of less than 7 days.

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In 2002, six women were reported to have died from maternal causes. The number of maternal deaths is highly variable from one year to the next (Table 1C-1). As in previous years, the number of maternal deaths does not include all deaths occurring to pregnant women, but only those deaths assigned to causes related to or aggravated by pregnancy or pregnancy management.

The maternal mortality rates are the highest among women aged 30 years and over, followed by women 19 years old and younger (Figure 1C-3). Women in their twenties, the principal childbearing ages, are at the lowest risk of maternal death.

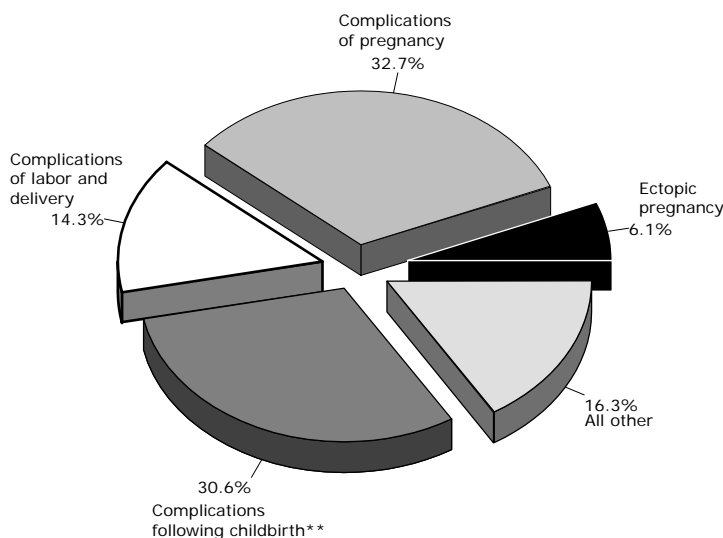
Figure 1C-3
Average Annual Maternal Mortality Rates by Age Group, Arizona, 1992-2002



Note: for 1992-1999, maternal deaths are those assigned to complications of pregnancy, childbirth and puerperium, category numbers 630-676 of the Ninth Revision, *International Classification of Diseases*. Beginning in 2000, these are category codes according to the Tenth Revision of the *International Classification of Diseases*. The age-specific mortality rates are based on the total number of maternal deaths from 1992 to 2002.

Figure 1C-4
Causes of Maternal Mortality*, Arizona, 1992-2002

In the eleven-year period from 1992 to 2002, the causes of maternal deaths in the State have included complications mainly related to pregnancy (32.7 percent of all maternal deaths), complications following childbirth (i.e. complications of the puerperium, 30.6 percent), and complications occurring in the course of labor and delivery (14.3 percent). Ectopic pregnancy accounted for 6.1 percent of maternal deaths in 1992-2002 (Figure 1C-4, Table 1C-2).



* Based on the total number of maternal deaths from 1992 to 2002.
**Complications of the puerperium.