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This volume, *The Arizona Fact Book on Women's Health*, is one of several *Fact Books* published by Arizona State University West's Partnership for Community Development to inform public policy and assist public and community-based organizations as they develop programs and services to address issues relevant to residents of Arizona. The *Fact Book's* intent is not to advocate for particular programs or political agendas, but to present data and other information that may be used as a basis for decision-making. While not an exhaustive treatment of women's health issues (in some instances statistics that would prove useful have not been compiled), this book attempts to provide a current examination of the set of issues facing this population in Arizona today.

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Introduction

There are approximately 275 million people living in the United States today; 140 million are women. Of the 4.8 million living in Arizona, 2.4 million (or half) are women. The *National Center for Chronic Disease Prevention and Health Promotion* reports that one out of ten Americans say they are in fair to poor health. More females than males make that claim, twice as many Blacks as Whites, 22% of the poor, 5% of the non-poor and more people living in the south.

Among women, heart disease is the leading cause of death overall and cancer is the leading cause of death among 25-44 year olds. In 1996, women made 471 million office visits to their physicians, 41 million made hospital outpatient visits, 50 million made emergency room visits, 41 million surgical procedures were performed on women and 18 million women were discharged from inpatient hospital visits.

National Health Expenditures in 1997 were \$1,092 billion, or 13.5% of the gross domestic products. \$585.3 billion of these expenditures were in private funds and \$507 billion came from public funding.

Taking care of health is increasingly about education and prevention. Conventional medical care focusing on crisis intervention, while often beneficial to the sick person, is not necessarily effective in keeping us healthy. According to *The Commonwealth Fund 1998 Survey of Women's Health*, lower-income and less-educated women appear less likely than higher-income, more educated women to receive regular preventive services, particularly in the area of breast and cervical cancer screening. Smoking rates among women have remained at the 1993 levels, with rates notably higher among lower-income women.

Collaborations between researchers, health professionals, policymakers and women themselves are developing, fueled by recognition of the uniqueness of certain health issues to women, and the differences in health and health care experiences between women and men.

The purpose of this book is to introduce the reader, in lay terms, to some of the most pressing health issues affecting women in Arizona today. Statistical information is available throughout the book to dramatize the narrative. The reader is encouraged to more thoroughly investigate issues of interest to them from the resources identified at the end of the book.

There is much research on women's health issues available from a wide variety of resources today. No longer restricted to medical libraries, doctors and pamphlets, anyone can scour the internet for hours on end, and not even begin to make a dent in reviewing the literature. Statistics abound. A plethora of experts exists.

But not everyone has time to review all the literature available before evaluating and/or deciding the direction of women's health care in Arizona. This fact book, therefore, endeavors to synthesize information from a broad examination of the literature. While by no means declaring this to be a comprehensive review of the issues, it is a reflection of those issues affecting most women in Arizona. Let us begin with some basics:

Table 1A.
LEADING CAUSES OF INFANT DEATH BY AGE GROUP, GENDER, ETHNICITY IN ARIZONA, 1999
 (AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total	Infant's Age		Gender		Ethnicity					
		Neonatal	Post-neonatal	Male	Female	Non-Hispanic White	Hispanic	Black	American Indian	Asian	Other/Unknown
Total*	547	363	184	314	232	196	238	52	49	5	3
PERINATAL CONDITIONS	222	208	14	123	99	87	90	21	18	2	2
- Low birthweight/short gestation	65	64	1	32	33	22	31	6	3	0	2
- Respiratory distress syndrome	5	4	1	5	0	3	1	0	0	1	0
- Other respiratory conditions	39	33	6	24	15	14	16	6	3	0	0
- Intrauterine hypoxia or birth asphyxia	4	4	0	2	2	2	2	0	0	0	0
- Maternal complications	23	23	0	13	10	9	10	1	3	0	0
- Other perinatal conditions	23	22	1	14	9	9	11	3	0	0	0
CONGENITAL ANOMALIES	128	94	34	71	57	41	68	8	9	1	1
- Diseases of heart	17	7	10	9	8	6	9	0	2	0	0
- Respiratory system	23	21	2	15	8	8	12	1	1	0	1
- Brain, spinal cord or nervous system	8	4	4	4	4	1	6	0	1	0	0
- Other anomalies	22	20	2	10	12	9	9	3	1	0	0
SUDDEN INFANT DEATH SYNDROME	38	2	36	30	7	12	15	5	5	0	0
- Unintentional injury	26	5	21	16	10	10	11	1	3	1	0
- Pneumonia/Influenza	21	0	21	14	7	3	14	2	2	0	0
- Homicide	6	0	6	3	3	4	0	2	0	0	0

* Includes mortality from causes of death not shown in this table.

Table 1B.
LEADING CAUSES OF DEATH AMONG CHILDREN 1-14 YEARS OLD BY GENDER, AREA AND ETHNIC GROUP - ARIZONA, 1999
 (AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total	Gender		Area			Ethnicity					
		Male	Female	Urban*	Rural	Un-known	Non-Hispanic White	Hispanic	Black	American Indian	Asian	Other/Unknown
Unintentional injury	99	65	34	68	39	1	32	35	6	26	0	0
- Motor vehicle-related	59	42	17	41	17	1	16	21	6	16	0	0
- Drowning	22	11	11	18	4	0	10	9	0	3	0	0
- Other injury	18	12	6	9	9	0	6	5	0	7	0	0
Malignant Neoplasms	28	13	15	22	5	1	11	11	3	3	0	0
Congenital Anomalies	17	8	9	13	4	0	6	7	2	2	0	0
Diseases of Heart	11	4	7	7	4	0	4	5	0	1	1	0
Homicide/Legal intervention	11	5	6	11	0	0	3	6	0	1	1	0
Pneumonia/Influenza	8	5	3	6	2	0	5	0	2	1	0	0
Suicide	7	6	1	3	4	0	3	2	0	1	0	0
Ill-defined conditions	6	4	2	4	0	2	3	1	1	1	0	0
Infections & Parasitic Diseases	5	3	2	4	1	0	3	1	0	1	0	0
- Septicemia	3	2	1	2	1	0	1	1	0	1	0	0
- Other Infections Diseases	2	1	1	2	0	0	2	0	0	0	0	0
Chronic Obstructive Pulmonary Disease	4	3	1	4	0	0	3	1	0	0	0	0
Cerebrovascular Disease	2	1	1	2	0	0	1	1	0	0	0	0
ALL CAUSES **	246	143	103	179	57	10	97	84	16	43	2	3

* Maricopa, Pima, Pinal and Yuma Counties

** Includes mortality from causes of death not shown above

NOTE: leading causes are those with the greatest number of deaths statewide in 1999

Table 1C.
LEADING CAUSES OF DEATH AMONG ADOLESCENTS 15-19 YEARS OLD
BY GENDER, AREA AND ETHNIC GROUP - ARIZONA, 1999
(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total	Gender		Area			Ethnicity					
		Male	Female	Urban*	Rural	Un-known	Non-Hispanic White	Hispanic	Black	American Indian	Asian	Other/Unknown
Unintentional injury	122	90	32	82	36	4	51	39	6	23	2	0
- Motor vehicle-related	100	73	27	63	33	4	44	28	6	21	1	0
- Drowning	2	1	1	1	1	0	1	1	0	0	0	0
- Other injury	20	16	4	18	2	0	6	10	0	2	1	0
Homicide/Legal Intervention	55	46	9	52	3	0	11	31	7	4	2	0
Suicide	36	31	5	23	11	2	17	13	0	5	0	0
Malignant Neoplasms	12	4	8	9	3	0	4	5	2	0	1	0
Diseases of Heart	7	7	0	7	0	0	3	3	1	0	0	0
Infectious & Parasitic Diseases	3	0	3	2	0	1	1	1	0	1	0	0
- HIV Infection	1	0	1	1	0	0	1	0	0	0	0	0
- Septicemia	1	0	1	1	0	0	0	1	0	0	0	0
- Other Infectious Disease	1	0	1	0	0	1	0	0	0	1	0	0
Ill-Defined Conditions	2	2	0	1	1	0	0	1	0	1	0	0
Pneumonia/Influenza	1	1	0	1	0	0	0	0	0	1	0	0
Chronic Obstructive Pulmonary Disease	1	1	0	1	0	0	1	0	0	0	0	0
ALL CAUSES**	277	211	66	199	63	15	108	104	16	39	6	2

* Maricopa, Pima, Pinal and Yuma Counties

** Includes mortality from causes of death not shown above

NOTE: leading causes are those with the greatest number of deaths statewide in 1999

Table 1D.
LEADING CAUSES OF DEATH AMONG YOUNG ADULTS 20-44 YEARS OLD
BY GENDER, AREA AND ETHNIC GROUP - ARIZONA, 1999
(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total	Gender		Area			Ethnicity					
		Male	Female	Urban*	Rural	Un-known	Non-Hispanic White	Hispanic	Black	American Indian	Asian	Other/Unknown
Unintentional injury	858	651	207	669	179	10	442	233	33	132	12	3
- Motor vehicle-related	439	315	124	324	109	6	181	140	12	91	11	2
- Other injury	419	336	83	345	70	4	261	93	21	41	1	1
Malignant Neoplasms	358	172	186	291	56	11	263	55	17	18	5	0
Suicide	350	281	69	273	67	10	232	70	14	28	4	0
Homicide/Legal Intervention	293	228	65	257	31	5	85	140	29	35	2	0
Diseases of Heart	242	176	66	192	45	5	166	37	16	19	0	1
Infections & Parasitic Diseases	145	117	28	134	10	1	78	36	14	15	1	0
- HIV Infection	97	85	12	92	4	1	55	26	11	5	0	0
- Septicemia	23	13	10	18	5	0	12	5	0	6	0	0
- Other Infectious Disease	25	19	6	24	1	0	11	5	3	4	1	0
Alcoholism	97	64	33	62	34	1	50	8	2	36	0	0
Cerebrovascular Disease	47	23	24	43	2	2	24	15	2	5	1	0
Pneumonia/Influenza	53	37	16	46	7	0	27	9	1	15	1	0
Diabetes	46	28	18	41	4	1	27	9	0	10	0	0
Ill-Defined Conditions	45	33	12	33	9	3	22	12	3	8	0	0
Chronic Obstructive Pulmonary Disease	16	10	6	14	0	2	10	5	0	1	0	0
ALL CAUSES**	2929	2048	881	2311	529	89	1650	698	149	379	27	13

* Maricopa, Pima, Pinal and Yuma Counties

** Includes mortality from causes of death not shown above

NOTE: leading causes are those with the greatest number of deaths statewide in 1999

Table 1E.
LEADING CAUSES OF DEATH AMONG MIDDLE-AGED ADULTS 45-64 YEARS OLD
BY GENDER, AREA AND ETHNIC GROUP - ARIZONA, 1999
(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total	Gender		Area			Ethnicity					
		Male	Female	Urban*	Rural	Un-known	Non-Hispanic White	Hispanic	Black	American Indian	Asian	Other/Unknown
Malignant Neoplasma	2078	1093	985	1662	414	2	1719	216	74	47	17	0
Diseases of Heart	1493	1075	418	1184	309	0	1188	157	66	64	8	3
Unintentional injury	469	353	116	349	118	2	296	83	11	66	3	6
- Motor Vehicle-Related	214	154	60	159	54	1	129	41	5	33	3	3
- Other injury	255	199	56	190	64	1	167	42	6	33	0	3
Chronic Obstructive Pulmonary Disease	269	149	120	212	55	2	237	12	10	6	2	2
Diabetes	257	153	104	207	50	0	131	65	12	44	3	0
Alcoholism	208	157	51	169	39	0	136	45	14	10	4	0
Cerebrovascular Disease	208	108	100	171	37	0	135	45	14	10	4	0
Suicide	219	162	57	158	61	0	189	14	2	8	3	1
Infectious & Parasitic Diseases	194	137	57	160	33	1	124	38	7	21	3	1
- HIV Infection	45	40	38	52	16	0	43	10	2	13	0	0
- Septicemia	68	40	28	52	15	0	43	10	2	13	0	0
- Other Infections Diseases	81	57	24	70	11	0	55	17	1	5	2	1
Pneumonia/Influenza	170	99	71	133	37	0	128	18	8	15	0	1
Nephritis, nephrotic syndrome and nephrosis	70	39	31	57	13	0	36	19	5	9	1	0
Homicide/Legal Intervention	68	43	25	49	19	0	37	14	5	10	0	2
Diseases of Arteries	62	44	18	46	16	0	42	16	4	0	0	0
ALL CAUSES **	6696	4133	2563	5302	1387	7	5052	865	262	424	50	19

* Maricopa, Pima, Pinal and Yuma Counties
** Includes mortality from causes of death not shown above
NOTE: leading causes are those with the greatest number of deaths statewide in 1999

Table 1F.
LEADING CAUSES OF DEATH AMONG ELDERLY 65 YEARS AND OLDER
BY GENDER, AREA AND ETHNIC GROUP - ARIZONA, 1999
(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total	Gender		Area			Ethnicity					
		Male	Female	Urban*	Rural	Un-known	Non-Hispanic White	Hispanic	Black	American Indian	Asian	Other/Unknown
Diseases of Heart	8582	4307	4275	7104	1478	1	7636	599	153	139	29	6
Malignant Neoplasms	6373	3424	2949	5107	1267	0	5729	402	103	86	31	3
Cerebrovascular Disease	2047	852	1195	1691	356	0	1818	147	36	32	10	0
Chronic Obstructive Pulmonary Disease	2207	1084	1123	1800	407	0	2079	70	26	15	5	2
Pneumonia/Influenza	1471	731	740	1164	307	0	1301	96	21	40	8	2
Diabetes	742	355	387	580	162	0	507	139	25	67	4	0
Unintentional injury	603	293	310	477	126	0	519	40	6	31	4	1
- Falls	337	149	188	285	52	0	304	17	1	10	2	1
- Motor vehicle related	156	86	70	108	48	0	128	17	1	9	1	0
- Other injury	110	58	52	84	26	0	87	6	4	12	1	0
Alzheimer's Disease	551	185	366	469	82	0	502	33	9	3	1	0
Atherosclerosis	424	186	238	327	97	0	383	22	8	7	1	0
Infectious & Parasitic Diseases	367	184	183	273	94	0	288	47	12	15	5	0
- HIV Infection	4	4	0	4	0	0	2	2	0	0	0	0
- Septecemia	232	112	120	159	73	0	177	32	9	12	2	0
- Other Infectious Disease	131	68	63	110	21	0	109	13	3	3	3	0
Diseases of Arteries	357	188	169	284	73	0	320	21	3	7	4	2
Nephritis, nephrotic syndrome, nephrosis	334	175	159	234	100	0	267	33	14	17	2	0
Suicide	160	132	28	119	41	0	147	7	3	1	0	0
ALL CAUSES **	28940	14141	14799	23447	5491	5	25554	2931	494	632	125	25

* Maricopa, Pima, Pinal and Yuma Counties
** Includes mortality from causes of death not shown above
NOTE: leading causes are those with the greatest number of deaths statewide in 1999

Table 2.
NUMBER OF DEATHS BY ETHNIC GROUP, GENDER AND COUNTY OF RESIDENCE – ARIZONA 1999
(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	TOTAL			ETHNIC GROUP																	
	MALE	FEMALE	TOTAL	Non-Hispanic White			Hispanic			Black			American Indian			Asian			Unknown		
				MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Total	20389	18006	38395	16528	15180	31708	2262	1638	3900	531	426	957	901	626	1527	107	116	223	60	20	80
APACHE	250	168	418	35	35	70	2	7	9	0	0	0	213	126	339	0	0	0	0	0	0
COCHISE	534	493	1027	423	376	799	95	99	194	9	12	21	2	1	3	4	5	9	1	0	1
COCONINO	292	250	542	157	161	318	37	26	63	5	2	7	93	61	154	0	0	0	0	0	0
GILA	333	291	624	276	238	514	30	24	54	0	0	0	27	28	55	0	1	1	0	0	0
GRAHAM	146	123	269	101	88	189	30	24	54	1	2	3	14	9	23	0	0	0	0	0	0
GREENLEE	35	32	67	24	17	41	11	15	26	0	0	0	0	0	0	0	0	0	0	0	0
LA PAZ	127	80	207	100	61	161	5	5	10	3	0	3	17	14	31	0	0	0	2	0	2
MARICOPA	10922	10119	21041	9230	8881	18111	1101	751	1852	353	302	655	135	102	237	83	73	156	20	10	39
MOHAVE	1057	750	1807	1004	713	1717	25	19	44	2	2	4	21	14	35	2	2	4	3	0	3
NAVAJO	343	268	611	165	140	305	23	15	38	5	2	7	149	111	260	1	0	1	0	0	0
PIMA	3640	3353	6993	2851	2764	5615	525	402	927	109	73	182	138	85	223	11	28	39	6	1	7
PINAL	830	622	1452	621	450	1071	131	101	232	21	17	38	55	53	108	1	1	2	1	0	1
SANTA CRUZ	129	86	215	55	22	77	73	62	135	1	2	3	0	0	0	0	0	0	0	0	0
YAVAPAI	966	910	1876	931	883	1814	27	19	46	1	0	1	5	6	11	0	2	2	2	0	2
YUMA	567	355	922	412	275	687	127	64	191	11	8	19	13	4	17	3	4	7	1	0	1
UNKNOWN	218	106	324	143	76	219	20	5	25	10	4	14	19	12	31	2	0	2	24	9	33

Table 3A.

**TOTAL AGE-ADJUSTED MORTALITY RATES¹ FOR LEADING CAUSES² OF DEATH
BY GENDER, ARIZONA, 1988-1998**

(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

CAUSES / GENDER	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
DISEASES OF HEART											
MALE	201.7	192.2	182.0	178.0	183.8	196.2	187.9	174.4	163.1	153.7	155.9
FEMALE	120.4	115.8	112.1	108.6	113.0	119.9	116.7	110.5	103.2	102.7	99.2
MALIGNANT NEOPLASMS											
MALE	153.9	144.1	148.3	151.6	153.3	156.3	159.4	143.4	141.0	134.7	131.9
FEMALE	104.5	106.1	105.0	109.6	106.5	111.0	111.7	104.6	101.3	101.7	99.6
UNINTENTIONAL INJURIES, TOTAL											
MALE	62.5	59.0	58.2	48.9	54.5	57.5	63.1	64.8	62.0	59.7	58.9
FEMALE	23.8	19.8	21.2	21.3	20.3	21.7	22.5	24.1	24.3	23.2	24.5
--- MOTOR VEHICLE-RELATED											
MALE	35.6	33.0	33.6	27.9	28.3	28.7	31.8	34.5	32.8	29.1	28.2
FEMALE	14.6	12.0	13.8	13.1	12.1	12.6	12.9	14.8	14.4	12.7	13.7
--- OTHER THAN MOTOR VEHICLE											
MALE	26.8	26.0	24.6	21.0	26.3	28.8	31.3	30.4	29.2	30.6	30.8
FEMALE	9.2	7.8	7.4	8.2	8.3	9.1	9.6	9.3	9.9	10.4	10.7
CEREBROVASCULAR DISEASE											
MALE	26.1	26.9	26.1	27.2	27.1	28.0	30.5	26.5	28.4	26.4	26.1
FEMALE	26.8	26.7	28.4	27.5	27.3	31.6	30.6	30.1	29.3	31.3	29.5
C. O. P. D.											
MALE	34.7	34.0	31.9	34.0	31.8	36.5	33.5	31.8	30.3	33.5	32.3
FEMALE	20.0	22.0	21.5	21.0	20.9	25.3	22.3	23.6	24.3	25.1	24.4
SUICIDE											
MALE	29.4	28.5	29.9	27.6	26.4	30.6	32.9	30.8	26.8	27.8	27.3
FEMALE	6.6	6.4	6.0	6.0	5.8	6.7	7.3	8.4	5.9	6.1	6.8
INFECTIOUS & PARASITIC DISEASE											
MALE	16.9	19.2	20.6	23.2	27.2	31.0	30.6	32.3	24.8	17.6	15.1
FEMALE	6.2	6.7	6.6	6.9	7.6	8.3	8.9	8.7	8.7	8.4	8.0
--- HIV INFECTION											
MALE	8.3	10.4	12.2	14.9	18.3	21.2	21.5	22.8	15.1	7.3	5.3
FEMALE	0.4	0.3	0.6	0.9	0.9	1.4	1.6	2.3	1.7	1.1	.7
PNEUMONIA & INFLUENZA											
MALE	19.9	21.0	21.7	21.1	19.4	22.6	20.3	18.1	18.6	17.3	19.2
FEMALE	15.9	15.9	16.5	16.4	14.0	15.9	15.4	13.9	14.3	15.1	16.5
HOMICIDE											
MALE	13.6	13.2	13.1	13.9	15.5	15.7	20.5	22.6	18.6	16.5	15.9
FEMALE	5.3	5.1	4.3	4.5	4.5	5.3	5.0	5.5	4.2	4.1	4.7
DIABETES											
MALE	12.1	12.5	11.1	11.2	12.4	11.2	13.6	12.5	13.6	13.6	15.6
FEMALE	9.5	11.4	8.7	9.1	10.7	10.9	11.9	11.8	12.7	12.7	11.5
ALCOHOLISM											
MALE	14.2	12.6	12.4	13.8	13.4	13.2	14.6	13.5	12.3	12.2	11.9
FEMALE	4.7	4.5	4.4	5.2	4.5	5.2	4.7	3.9	5.2	4.0	3.9
TOTAL, ALL CAUSES											
MALE - AZ	684.2	659.2	655.5	649.0	675.6	707.6	716.2	676.7	642.7	618.2	616.7
FEMALE - AZ	420.0	416.0	407.8	414.1	415.1	443.7	448.1	433.2	427.4	424.6	424.8
MALE - US ³	699.8	679.6	668.9	660.1	656.1	667.7	657.4	646.3	637.4	616.1	613.3
FEMALE - US	403.5	396.4	398.0	382.1	381.2	387.5	384.5	385.2	384.0	380.7	379.1

¹ Adjusted to U.S. population of 1940 and presented per 100,000 population.

² Leading causes are those 10 causes with the greatest number of deaths for males in 1998.

³ The U.S. data for 1998 are for 12 months ending June 1998.

Table 3B
AVERAGE AGE AT DEATH FROM ALL CAUSES BY GENDER AND ETHNICITY,
ARIZONA, 1988-1998

(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

YEAR / GENDER	ALL ETHNIC GROUPS ¹	NON- HISPANIC WHITE	HISPANIC ²	BLACK	AMERICAN INDIAN	ASIAN ³
1988, Total	67.8	69.9	58.1	57.6	47.0	NA
MALE	65.1	67.5	54.2	55.3	48.3	NA
FEMALE	71.2	73.0	63.7	60.9	55.1	NA
1989, Total	68.2	70.4	57.1	56.9	53.0	NA
MALE	65.3	67.7	54.1	55.7	49.4	NA
FEMALE	71.7	73.6	61.0	58.6	58.4	NA
1990, Total	68.4	70.6	58.5	58.1	51.4	NA
MALE	65.4	67.9	54.6	55.5	48.7	NA
FEMALE	72.2	73.9	64.1	61.6	56.1	NA
1991, Total	68.5	70.8	57.6	58.8	52.3	60.5
MALE	65.6	68.1	54.7	54.4	50.4	59.0
FEMALE	71.9	73.7	61.5	64.4	54.8	62.4
1992, Total	68.7	71.1	58.3	57.8	52.8	NA
MALE	65.8	68.5	54.8	54.7	49.0	NA
FEMALE	72.4	74.2	63.7	62.3	58.7	NA
1993, Total	68.6	71.1	57.9	56.2	51.9	NA
MALE	65.6	68.3	54.7	54.1	49.3	NA
FEMALE	72.2	74.3	62.7	59.2	55.8	NA
1994, Total	68.4	71.0	56.6	56.8	52.0	NA
MALE	65.2	68.2	52.5	54.5	48.7	NA
FEMALE	72.2	74.2	62.3	60.6	57.2	NA
1995, Total	68.5	71.0	57.4	57.4	52.2	NA
MALE	65.2	68.2	53.1	53.7	48.2	NA
FEMALE	72.4	74.2	63.6	62.9	57.8	NA
1996, Total	69.6	72.4	56.5	57.8	52.9	62.1
MALE	66.1	69.2	52.6	54.9	49.9	60.6
FEMALE	73.6	75.9	62.4	61.3	57.2	63.9
1997, Total	71.0	73.1	61.3	61.9	55.4	64.2
MALE	67.5	70.1	57.2	57.6	51.2	61.4
FEMALE	74.9	76.3	67.4	67.7	61.4	68.0
1998, Total	71.2	73.4	61.8	62.5	56.5	62.7
MALE	67.9	70.5	57.4	59.4	53.2	60.8
FEMALE	74.9	76.5	68.0	66.3	61.2	62.7

¹ May include records with other/unknown ethnic groups

² White of Hispanic origin

³ Due to statistically small numbers of deaths per year, data for Asians are shown only for 1991, 1996, 1997 and 1998. The smaller the number of events, the higher the variability, therefore all indicators for Asians should be interpreted with caution.

Cancer

The 1998 cancer death rate in the United States of 114.2 per 100,000 people was the lowest in eleven years (see Tables 4 & 5). Cancer mortality rates have improved for both males and females in Arizona, accounting for approximately 23% of all deaths in 1997 (*National Vital Statistics Reports, Vol. 47, No. 19, June 30, 1999*). In 1998, cancer was a 32.5% greater risk for Arizona males than females). Arizona's Blacks were two times more likely to die from cancers in 1998 than Asians, who had the lowest risk among ethnic groups).

In 1998, lung cancer accounted for 30.5% of all cancer deaths among males, compared to 25.8% among females. Breast cancer accounted for 16.2% of all female cancer deaths. Colorectal cancer was the third leading cause of cancer mortality among both males (10.4%) and females (9.8%).

Death rates for specific cancers varied considerably across ethnic groups. Lung cancer death rates were 4.3 times higher among Blacks than American Indians in Arizona. The age-adjusted mortality rate for breast cancer among Black females (21.6/100,000) was 3.3 times higher than among Asian females.

Breast Cancer

Breast cancer affects an estimated one in eight women. Probably the most deeply feared cancer among American women, its morbidity rate is second only to lung cancer. However, while outcomes of this disease vary widely, a cure is often the result in cases detected early.

A woman's chance of developing breast cancer varies greatly with her age, ethnic group, menstrual history and family history of breast cancer. While the greatest risk factor is having a mother or sister with breast cancer, studies indicate that less than 10% of all breast cancer is thought to be inherited and no more than 5% comes from a genetic defect. Women who have been exposed to high levels of estrogen over their lifetime seem to have a marked increase in breast cancer. And, in the February 27, 1997 issue of the *New England Journal of Medicine*, the National Institutes of Health published an epidemiological study stating that women with the highest bone mass are at a much greater risk of postmenopausal breast cancer.

Cervical Cancer

Cancer of the cervix is one of the most common cancers affecting the reproductive organs. Responsibility for approximately 95% of cervical cancer cases is attributed to one of several strains of the human papillomavirus (HPV), a sexually transmitted infection. In most women, the immune system response to HPV prevents the virus from doing harm. However, in a small group of women, the virus will survive for years before converting cells on the surface of the cervix into cancer cells. Often, women with cervical cancer (occurring most often in women between the ages of 30 and 55) have no symptoms.

Colorectal Cancer

Cancer of the colon (large intestine) and the rectum is one of the most common forms of cancer in the US and is the third leading cause of cancer deaths for women in the US. Although it is unclear why, colorectal cancer affects men and women differently. While the rate of incidents has remained somewhat steady in women, the number in men has increased. Some studies suggest that improved dietary and exercise habits, as well as the relationship between certain foods and the hormones produced during a woman's childbearing years may explain the reduction.

Approximately 20% of colorectal cancers can be traced to a predisposing gene. There is also evidence that a sedentary lifestyle may increase the risk of developing colon cancer.

Lung Cancer

Lung cancer remains the most lethal cancer that strikes women. While cigarette smoking is still believed to be the leading cause, a study conducted by The Commonwealth Fund indicates that anti-smoking campaigns have had little impact among women, and smoking rates have remained essentially unchanged. Even among women who do not smoke, lung cancer remains the third highest cause of cancer-related death.

It is suspected that any type of lung cancer develops over the years due to a series of insults to the lungs – from smoking, environmental carcinogens (i.e. radon or asbestos) and long-term lung disease. The impact of these factors increases when weighed together. According to the Harvard Guide to Women's Health, there is preliminary evidence that women run about two times the risk of developing lung cancer from smoking as men do, apparently doing more damage to the DNA in women's lung cells.

Until the causes of "nonsmoker" lung cancers are better understood, prevention will remain a challenge. Work is being done to find chemical markers in the blood and urine that could identify malignant cells earlier and offer hope. Early detection increases the rate of cure.

Ovarian Cancer

Ovarian cancer causes more deaths than any other gynecologic cancer and accounts for 6% of all cancers in women. It is now estimated that more than 14,000 women die annually of the disease, with postmenopausal women up to the age of 70 showing the highest incidence and mortality rates. Difficult to detect, about 60% to 70% of the diagnoses are made after the disease is in an advanced stage. Diagnosis is made based on a pelvic exam followed by an ultrasound and a biopsy. The major risk factors include endocrine dysfunction, infertility, celibacy, high-fat diets, higher socioeconomic status, and occupational exposure to talc and asbestos.

Table 4. Mortality rate from selected chronic conditions per 100,000 persons in Arizona
(Office of Epidemiology and Statistics – Arizona Department of Health Services)

Type of Chronic Condition	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Coronary heart disease (all)	133.7	126.6	121.5	116.4	111.2	113.0	121.0	117.8	111.0	103.5	102.2	100.4
Coronary heart disease (Blacks)				164.0						114.4	105.2	135.4
Strokes (all)	27.4	26.6	26.9	27.4	27.5	27.2	30.1	31.5	28.5	29.0	29.2	28.0
Strokes (Blacks)				40.7						37.3	34.0	30.7
Cardiovascular disease	202.2	196.5	189.1	182.3	178.7	183.7	196.2	192.4	180.2	171.9	166.9	167.3
Cancers (all)	128.6	126.3	122.5	124.1	128.0	127.1	130.7	132.3	121.7	119.3	116.5	114.2
Lung Cancer	36.8	37.1	33.8	34.9	36.2	36.7	37.2	33.3	34.1	33.5	32.2	31.8
Breast Cancer (women)	21.5	20.6	20.2	21.2	20.5	20.0	21.6	21.4	17.2	17.2	19.3	18.2
Uterine Cancer	2.7	2.5	1.6	2.6	2.2	1.9	2.0	2.6	2.4	2.5	1.7	1.5
Colorectal Cancer	12.8	13.0	12.5	11.7	11.7	12.4	12.7	12.9	11.5	11.7	10.7	11.1
Chronic obstructive pulmonary disease	26.5	26.1	27.0	26.1	26.7	25.7	29.0	27.1	27.2	27.0	28.9	28.0

Table 5: Number of deaths and death rate for major causes of death in Arizona in 1997
(National Vital Statistics Reports, Vol. 47, No. 19, June 30, 1999)

Cause of Death	Number	Rate
HIV infection	162	3.6
Cancers (all)	8,448	185.5
Diabetes mellitus	947	20.8
Alzheimer's disease	438	9.6
Heart diseases	10,174	223.4
Cerebrovascular disease	2,483	54.5
Pneumonia/influenza	1,274	28.0
Chronic obstructive pulmonary diseases	2,377	52.2
Chronic liver disease	606	13.3
Nephritis	328	7.2
Accidents	2,147	47.1
Motor vehicle accidents	954	20.9
Suicide	757	16.6
Homicide & Legal Intervention	431	9.5

Heart Disease

Heart disease is the nation's leading killer of both men and women among all racial and ethnic groups. Over 40% of deaths in America are caused by cardiovascular disease, which is also the leading cause of death in people over the age of 35. The estimated cost of treating cardiovascular disease and stroke in 1998 is \$274.2 billion, including direct medical costs and lost productivity. A nationwide prevention program could save \$16.6 billion.

In Arizona, mortality rate from heart disease declined for the fifth consecutive year from 155/100,000 in 1993 to 125.8/100,000 in 1998. In 1992, the female rate was 99.2/100,000 and the male rate was second lowest at 155.9/100,000 in the eleven year period (see Table 3A).

The survival rate for males experiencing heart disease was higher in 1998 than the survival rate for females. Blacks in Arizona were 4.1 times more likely to die from heart disease than Asians who were at the lowest risk of death among ethnic groups in Arizona.

Cardiovascular disease

Cardiovascular diseases kill more women than all forms of cancer, chronic lung disease, pneumonia, diabetes, accidents and AIDS combined. More than one in five women have some form of cardiovascular disease, and heart attack, stroke and other cardiovascular diseases have killed more women than men every year since 1984. Stroke, alone, is the third leading cause of death for American women, and the death rates are highest for African-American women.

Coronary heart disease is the leading cause of death for women in the United States over the age of 50. 44% of all female deaths in America and most developed countries occur from cardiovascular disease (CVD), particularly coronary heart disease and stroke. In fact, one of two women will die of heart disease or stroke, compared with one in 26 who will die of breast cancer. While men face a 5 to 6% morbidity rate from a heart attack, women's risk is 11 to 12%.

Prior to menopause, women have less risk of heart disease than men do. However, the risk of heart disease and stroke increases with age. Census projections have suggested that there are now over 50 million American women over the age of 50. Research does indicate that postmenopausal estrogen therapy may reduce that risk.

In addition, women whose husbands are recovering from heart attacks or open-heart surgery appear to have a significantly increased risk of cardiovascular disease themselves. While attention has always centered on the patient's need to lower his or her risk factors to avoid disease progression, the study indicates that it may be equally important to target the spouse of the patient as well. Not surprisingly, the spouses often have the same risk factors as the patients, including similarities in current and past smoking histories and exercise levels. However, studies also indicate that twice as many women as men continue to smoke following a male patient's heart attack and fewer women exercise compared to men.

Coronary artery disease (CAD) is a form of heart disease caused by obstructions in the arteries supplying blood to the heart. Although this is the number-one killer of both men and women in this country, it tends to affect women 10-15 years later in life. Again, this is thought to be due to the protective effect of estrogen in premenopausal women, which seems to stall the progress of depositing fat and cholesterol in the blood.

While women have lower risk of CAD by virtue of their sex, the most significant risk factor for women is age. Ethnicity also seems to play a role – the rate of CAD is highest in African American men, then white men, African American women and white women. Rates of CAD in Hispanics and Asians are lower for both sexes. Additional factors include: Hypertension, diabetes, smoking, family history, obesity, a sedentary life style and cholesterol levels.

The symptoms of CAD range from none to angina to heart attack. In fact, while heart attack is often the first symptom of CAD in a man, women are more likely to develop a chest pain as their first symptom. The condition is most commonly evaluated today by: (a) exercise stress testing, (b) thallium scanning, and (c) coronary angiography. Unfortunately, these methods are often ineffective in evaluating women, creating false positive and false negative readings. Consequently, clinicians are beginning to use noninvasive tests such as ultrasound in attempts to improve accuracy in evaluation.

Stroke is the number one cause of serious, long-term disability among American women. Although the incidence of stroke is 19% higher for men than for women, women are twice as likely to die of them. This may be because women have a longer life expectancy and tend to have strokes at later ages. Certain conditions unique to or more common in women (i.e. pregnancy and mitral valve prolapse) may predispose some women to strokes.

The risk of having a stroke increases with age; in fact, the chances double for each decade beyond the age of 35. Certain inherited or acquired conditions can increase the likelihood of strokes, including cancer, immobilization in bed, certain blood disorders, and the presence of antibodies in the blood often found in women suffering from lupus.

The American Heart Association, in mounting a major public awareness campaign about women and health disease, conducted 1,000 interviews among a national random sample of women 25 years and older.

Chronic Disease

Chronic illness is permanent and progressive and requires ongoing adaptation and management. It is the most prevalent form of illness in the U.S. today (see Tables 6 & 7) and, according to *Women's Health Care, a Comprehensive Handbook*, poses one of the country's most pressing and challenging health care problems. Chronic disease is differentiated from an acute illness in a number of ways. Chronic illness is long-term, progressive and requires ongoing care, whereas acute illness is sudden and produces symptoms soon after exposure to the disease. Acute illness responds to treatment and usually does not have long-term consequences. Chronic illness may include a long period of latency where the disease process has begun but symptoms have not appeared. Disability is sometimes associated with chronic illness.

Arthritis

Over 32 million Americans have arthritis, 85% of who are over the age of 45. Arthritis is two to three times more common in women than in men and is the most prevalent chronic condition reported in women overall. Under the age of 45, only 37 out of 1,000 women report arthritis, while half (550) of every 1,000 women over 65 experience arthritis. About 25% of these women experience limitations in activity because of their condition.

Arthritis is a general term for a number of different conditions involving swollen, painful or still joints. There are more than 100 arthritic diseases, some causing more debilitation and pain than others. Some of the forms more frequently experienced by women include:

- ?? *Osteoarthritis*: painful joints caused by a gradual loss of cartilage. Common in individuals over 60, this breakdown in cartilage can result from physical injury, mechanical stress or metabolic abnormality;
- ?? *Lupus*: a chronic auto-immune disease often characterized by rashes and fevers following exposure to sunlight;
- ?? *Psoriatic arthritis*: more often observed in women patients suffering from psoriasis, this condition, characterized by painful swollen joints, particularly in the fingers, toes, knees and elbows; and
- ?? *Chemically induced arthritis*: a joint pain and stiffness resulting from use of some medications used to treat acne, heart arrhythmia and hypertension

Chronic Bronchitis

Bronchitis is an inflammation of the lining of the bronchial tubes. When these tubes are inflamed or infected, less air is able to flow to and from the lungs and heavy mucus is coughed up.

Chronic bronchitis is an infectious condition. Defined by the presence of a mucus-producing cough most days of the month, three months a year for two successive years, it develops over the years, will not go away on its own and renders the infected person increasingly vulnerable to infections.

While acute bronchitis is brief in duration or course and will respond to treatment, chronic bronchitis persists over a long period of time, involves a permanent loss of function of affected organs and may require an extended period of symptom management and treatment.

Cigarette smoking is the most common cause of chronic bronchitis. Air pollution and industrial dusts and fumes are also causes. It affects an estimated 5.4% of the U.S. population. It is more prevalent among females than males and, while it affects people of all ages, more incidences are diagnosed in those over 45 years old. Women smokers of any age are ten times more likely to die of these conditions than non-smokers.

Crohn's Disease

Chron's disease is a chronic, recurring inflammation of the intestine, usually affecting the lower part of the small intestine. In some cases, both the small and large intestines are affected. It occurs in about 150 of 100,000 people in the US. It is chronic condition that may recur at various times over a lifetime and it remains most unpredictable.

While most pregnancies of women with Chron's disease result in normal births, and the course of the pregnancy and delivery is not usually impaired, it is important for women to discuss the matter with their doctors before pregnancy. Children who do get the disease are sometimes more severely affected than adults, with stunted growth and delayed sexual development in some cases.

Several drugs are helpful in controlling the disease; however, there is no cure at this time. The usual therapeutic goals are to correct nutritional deficiencies, control inflammation and relieve abdominal pain, diarrhea and rectal bleeding.

Diabetes

Diabetes is a disease that affects the body's ability to produce or respond to insulin, a hormone that allows blood glucose to enter the body's cells and be used for energy. Its complications include blindness, kidney disease, amputations, coronary heart disease and stroke, making it the seventh leading cause of death. The risk of diabetic coma is 50% higher among women than men, yet, while approximately eight million women in the U.S. have diabetes, almost one-third of them does not know it.

Diabetes falls into two main categories: Type 1 usually occurs during childhood and/or adolescence, while Type 2 (the more common form) usually occurs after age 45. In addition, pregnancy introduces the risk of gestational diabetes, developed in 2% to 5% of all pregnancies.

While gestational diabetes disappears when a pregnancy is over, women who have had it are at increased risk for developing Type 2 diabetes later. Between 3-5% of pregnancies among diabetic women result in death of the newborn within the first month, compared to a rate of 1.5% for non-diabetic women.

In Arizona, the death rate from diabetes remained unchanged between 1996 and 1997, but increased to 13.5/100,000 in 1998. Although diabetes is the 8th leading cause of death in the U.S., Arizona has a 13% higher prevalence of diabetes than the U.S. It was the fourth leading cause of death among American Indians and Hispanics, seventh among Blacks, and eighth among white non-Hispanics and Asians (see Tables 1D, E, & F).

Ideally, diabetic women should be monitored frequently by a health care team knowledgeable in diabetes care. Diabetics can reduce their risk if they are educated about their disease, if they learn and practice the skills necessary to regulate their blood glucose levels and if they receive regular checkups from their health care team.

Hypertension

Hypertension – consistently high blood pressure – is a common problem in the US and is a major cause of stroke and heart disease. Approximately 20% of all adults have high blood pressure, with the rate of incidence higher in men than in women. The blood pressure is the amount of pressure exerted by the blood against the walls of the heart. African American women over 40 are twice as likely to have hypertension as white women of the same age.

Excess sodium in the diet and inadequate potassium and calcium have all been linked to hypertension. Evidence exists that use of birth control pills may be associated with hypertension. Psychological and social factors (particularly stress) also seem to be involved. Women who drink 1 to 2 alcoholic beverages per day seem to be at lower risk than those who do not drink at all, while heavy drinking women are at a much higher risk. Obesity also plays a role with women weighing 20% more than their ideal weight developing hypertension four times more frequently than non-obese women. Women with diabetes are also at risk for hypertension.

Table 6: Number of selected reported chronic conditions per 1,000 women by age
(National Center for Health Statistics: United States 1995)

Type of Chronic Condition	Under 45 years	45-64 years	Total	65-74 years	75 years and over
Arthritis	36.0	285.4	550.2	498.2	616.1
Intervertebral disc disorders	11.5	42.0	29.6	32.0	26.7
Disorders of bone or cartilage	2.6	17.0	33.9	34.4	33.2
Diabetes	9.7	65.4	128.4	134.3	121.1
Migraine headache	70.7	82.6	24.1	35.2	10.1
Heart disease	34.0	100.0	268.5	229.3	318.0
High blood pressure (hypertension)	30.3	212.9	442.1	423.8	465.3
Hardening of the arteries	0.3	6.1	38.6	26.6	53.7
Chronic bronchitis	58.9	88.7	71.8	72.4	70.9

**Table 7: Number of selected reported chronic conditions per 1,000 persons
by geographic region and place of residence**
(National Center for Health Statistics: United States 1995)

Type of Chronic Condition	Northeast	Midwest	South	West	All MSA ¹	Central City	Not central city	Not MSA
Arthritis	124.7	122.7	130.3	117.6	119.0	119.4	118.8	147.5
Intervertebral disc disorders	21.7	20.9	25.5	20.7	22.7	20.7	23.8	22.4
Disorders of bone or cartilage	5.0	6.8	8.2	6.4	6.8	5.6	7.6	6.9
Diabetes	39.2	30.4	35.7	26.6	32.4	31.9	32.8	36.2
Migraine headache	35.3	47.1	46.3	51.3	45.3	43.2	46.5	45.9
Heart Disease	90.6	78.5	82.3	71.1	79.1	73.8	82.2	86.8
High blood pressure (hypertension)	111.2	111.6	127.8	98.2	112.6	118.2	109.3	121.4
Hardening of the arteries	8.3	7.6	5.5	7.8	6.5	6.5	6.5	9.2
Chronic bronchitis	52.6	60.2	57.5	49.6	54.9	52.5	56.3	58.1

¹ Metropolitan Statistical Area

Musculoskeletal Pain

One out of every seven visits to primary care physicians is for musculoskeletal symptoms. The musculoskeletal system includes the muscles and bones as well as the joints that connect one bone to another, and the tendons that connect muscles to bones. Women are particularly likely to develop disorders in distinct regions of the body, particularly the hands, wrists and the lower back.

Back Pain

Back pain is ranked second only to headaches as the most frequent location of pain. The spine, designed to absorb the impact of day-to-day living, has a series of curves in the neck, the upper back and the lower back, which network with the ligaments, muscles and nerves. Low back pain, often associated with reproductive functions and with obesity, is quite common in women, as are osteoarthritis and osteoporosis. Studies reveal that back pain may be prevented or reduced by adopting a short daily exercise program that increases flexibility of the back, while strengthening the shoulder and abdominal muscles.

The causes of back pain include: muscle strains and spasms, osteoarthritis, sciatica, osteoporosis, herniated disk and fibromyalgia. Infrequently, back pain can signal a more serious medical problem. Back pain associated with any of the following requires a doctor's attention:

- ?? Bladder or bowel control
- ?? Numbness in the groin or anal area
- ?? Weakness or numbness in one or both legs
- ?? Rapid weight loss
- ?? History of cancer

Back injuries are one of the most common causes of disability. It is estimated that the cost of back pain in the United States exceeds \$20 billion a year.

Carpal Tunnel Syndrome

At the base of the palm is a tight canal, or "tunnel", which threads tendons and nerves from the forearm to the hand and fingers. The nerve passing between the tunnel to reach the hand is called the median nerve and the passage between the forearm and hand is called the "carpal tunnel".

Normally, this passage is very snug with just enough room for all the tendons and nerves. Anything extra taking up room in the canal causes it to become tight and the nerve becomes "pinched", creating numbness and tingling. This is commonly referred to as Carpal Tunnel Syndrome (CTS), a condition more common among women than men. Health conditions that increase risk include thyroiditis, diabetes, some arthritis and pregnancy. The most common cause of CTS is an inflammation of the tendons in the tunnel.

Occurring in about one out of every 1,000 people, carpal tunnel syndrome is particularly common in women aged 50 to 70 years old. It is also common in people performing repetitive hand motions, particularly those involving bending the wrist. These include typists, carpenters, upholsterers, violinists, and waitresses, as well as people who knit, crochet, hook rugs or similar activities, most of which are predominantly performed by women.

Symptoms often worsen at night and, over time, may progress from numbness and tingling in the fingers to burning and aching there as well as painful numbness in the palm. In severe cases, the affected fingers may become permanently numb and muscle atrophy may make the thumb difficult to move.

Osteoporosis

Osteoporosis is a disease in which bones become fragile and more likely to break. Often called the “silent disease” and characterized by low bone mass and deterioration of bone tissue, osteoporosis is a major public health threat for more than 28 million Americans, 80% of whom are women. One in two women will have an osteoporosis-related fracture in their lifetime; in fact, women can lose up to 20% of their bone mass within five to seven years of menopause, leading to osteoporosis.

In addition to sex and aging, risk factors include a family history, postmenopause, abnormal absence of periods, anorexia nervosa or bulimia, a calcium-deficient diet, inactivity, excessive use of alcohol and smoking. A woman’s risk of hip fracture from osteoporosis is equal to her combined risk of breast, uterine and ovarian cancer.

The good news is that osteoporosis is largely a preventable disease. Research has enhanced public knowledge about how to maintain a healthy skeleton, as well as the diagnosis and treatment.

Sexually Transmitted Disease

A sexually transmitted disease is an infectious disease spread from person-to-person through direct body contact or contact with infected body fluids; any disease acquired primarily through sexual contact. Secondary contact can also be a source for some STD's. Today, over 20 STD's are recognized. The major groups or organisms causing STD's are bacteria, viruses, fungi and metazoa.

Every year more than 12 million cases of sexually transmitted diseases are reported in the U.S. These infections result in billions of dollars of preventable health care spending. The health impact of STD's is particularly severe for women. Because the infections often cause few or no symptoms, they may go untreated, leaving women at risk for complications including ectopic pregnancy, infertility, chronic pelvic pain and poor pregnancy outcomes.

HIV and AIDS

Although the first cases of AIDS in women were reported in the early 1980s, health care providers have only relatively recently confirmed that HIV infection in women is a serious problem that continues to worsen (see Tables 1C-F). Gynecological symptoms are more readily recognized now than they were ten years ago and a female-specific diagnosis for AIDS (invasive cervical cancer) has been recognized since 1993.

More powerful HIV therapies and successful prevention of opportunistic infections have transformed AIDS care. People with AIDS are living longer and healthier lives. Research into new therapies, coupled with the outreach and education programs of the past 15 years, have reduced the number of new AIDS diagnoses, while slowing progression from HIV to AIDS and decreasing the death rate.

While much of this is good news, the fact is that the picture for women is, unfortunately, not so hopeful (see Tables 8-10). While the male morbidity rate among men infected with AIDS has declined by 22%, women show only a 7% declining morbidity rate. AIDS is the leading cause of death among 25 to 44 year old African American and Hispanic women and the third leading cause of death between all women in this age group in the US. Women are one of the fastest growing groups of new AIDS cases, yet while clinical research on potential treatments now includes female participants, they represent only 12% of the total participants. Women are currently 33% more likely to die from AIDS than men are because treatment usually begins much later in women, if at all.

The reasons for this vary. In the early days of the epidemic, AIDS programs primarily targeted gay men. Consequently, many women did not know as much about available services and treatments. Additionally, doctors and clinics sometimes fail to recognize the early symptoms of HIV in women. In spite of this, the treatment options do not vary much between men and women, unless a woman is pregnant.

As women ask why HIV is affecting women differently than men, it is necessary to evaluate societal response. Effective HIV/AIDS prevention and care services targeting women, especially women of color, and those with less education and lower social status, must be developed and integrated into existing structures.

From 1988 through 1998, Arizonans were less likely to die from HIV infection than their national peers. The rate of deaths from HIV infection showed a sharp decline (76.2%) from 12.6/100,000 in 1995 to 8.4/100,000 in 1996, 4.2/100,000 in 1997 and 3.0/100,000 in 1998. Mortality from HIV infection continues to remain (in Arizona) a more predominantly male experience. In 1998, males accounted for 88.8% of deaths from HIV infection.

Table 8: Arizona HIV Infection Surveillance Report
 (Arizona Department of Health Services – Disease Prevention Services)
 (Cumulative Cases Through May 1, 2000 – Females)

Adult/Adolescent Exposure Category	HIV			AIDS	
	Number	Percent ¹		Number	Percent
Injecting drug user	175	(39%)	[27%]	221	38%
Hemophiliac	0	(0%)	[0%]	2	0%
Heterosexual contact with high risk individual	249	(56%)	[38%]	215	37%
Transfusion with blood or blood products	20	(5%)	[3%]	55	9%
Confirmed Occupational Exposure				1	0%
None of the above/unknown ²	202	2,483	[31%]	94	16%

Table 9: Female AIDS Cases by Exposure Category and Year of Diagnosis– Arizona – 1981-2000
 (Arizona Department of Health Services – Disease Prevention Services)

Exposure Category	1981															
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Injecting drug user	6		13	10	13	13	22	24	12	23	24	17	18	13		
Hemophiliac	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heterosexual		5	6		8	16	15	23	24	26	29	28	25			
Transfusion	6	10		7											0	
Ped mom with HIV	0	0	0								0	0		0	0	
None of the above							7	10	8	18	19		7	14		

¹ Percentages within parentheses () exclude cases with missing or unknown data for that category. Percentages within brackets [] are based on the total number of reported cases, including those with missing or unknown data.

² This category consists largely of persons who could not be located or interviewed.

Table 10: Female AIDS Cases by Race/Ethnicity and Year of Diagnosis – Arizona – 1981-2000
(Arizona Department of Health Services – Disease Prevention Services)

Race/Ethnicity	1981														
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
White	14	18	19	17	27	27	27	38	39	43	36	27	28	16	
Black	0	0	0	0	0	0	0	0	12	0	10	0	12	9	0
Hispanic						5	11	16		17	12	17			
Asian/Pac. Isl.															
Native American															
Unknown															

Chlamydia

This is the most common bacterial sexually transmitted disease in the U.S., causing an estimated 4 million infections annually, primarily among adolescents and young adults. Untreated infections in women can progress to the upper reproductive tract, resulting in serious complications. As many as 75% of women infected with chlamydia are symptom free. One in ten adolescent females and 1 in 20 women of reproductive age are infected.

Pelvic Inflammatory Disease (PID)

PID refers to upper reproductive tract infection in women. These often develop when STD's are untreated or inadequately treated, affecting more than 750,000 women. Chronic pelvic pain and harm to reproductive organs are results of PID; permanent damage to the fallopian tubes has resulted from a single episode. Damage to the fallopian tubes is the only preventable cause of infertility. One potentially fatal complication of PID is ectopic pregnancy, an abnormal condition occurring when a fertilized egg implants in a location other than a woman's uterus – often in a fallopian tube. Among African American women, ectopic pregnancy is the leading cause of pregnancy-related deaths.

Gonorrhea

Gonorrhea is a common bacterial STD that can be treated with antibiotics. While rates among adults have declined, adolescent rates have risen or remain unchanged. The highest rates of gonorrhea are observed in females ages 15-19. It is estimated that 50% of those infected have no symptoms and, without early screening and treatment, 10 to 40% of them will develop PID.

Herpes Simplex Virus

The herpes simplex virus causes genital herpes. This disease may recur and has no cure. As many as 30 million persons in the US may suffer from genital herpes. Most of those infected never recognize symptoms, while others are symptomatic shortly after infection and never again.

Syphilis

A bacterial infection, syphilis is curable with antibiotics. Syphilis cases increased dramatically from 1985 to 1990 among women of all ages. An analysis of 1993 data shows that the rates were higher among female than male adolescents – sometimes twice as high. The syphilis rates for African American women are seven times greater than the female population as a whole.

Reproductive Issues

Menstruation, pregnancy, childbirth, contraception, fertility and menopause present special health care needs for women. The Centers for Disease Control and Prevention addresses a wide range of reproductive health issues, with the overall goal of preventing illnesses and deaths.

Menstruation

The menstrual cycle involves the periodic release of a fertile egg or ovum from the ovary, the preparation of the uterine lining for pregnancy and, if fertilization does not occur, the shedding of the lining as a bloody vaginal discharge – menstruation. This cycle occurs in premenopausal women and is controlled by finely tuned feedback between hormones of the pituitary gland, hypothalamus and ovaries.

The average cycle is 28 days from the first day of one menstrual period to the first day of the next with normal cycles lasting between 21 and 38 days. Menstrual flow lasts from three to seven days. Most women lose only about three to four ounces of menstrual fluid each month.

Contraception

About 60% of U.S. women of reproductive age use some form of contraception. Birth control pills were the choice for about 10 million women, while surgical sterilization was the option most often selected by married couples and formerly married women (see Tables 11 & 12).

The ***birth control pill*** is the most reliable form of birth control, when used correctly without missed days. ***Sterilization*** is the most common birth control method for women over 30 years of age, and is used by 25% of women between the ages of 15 and 44. Research indicates that sterilized women are less likely to use condoms during intercourse, making educational efforts essential for this group unless they are sexually abstinent or have a mutually monogamous relationship with a no-risk partner for acquiring the AIDS virus. ***Condoms***, when used properly, can prevent up to 85% of unwanted pregnancies by providing a direct physical barrier to sperm. Some condoms are also lubricated with a spermicide that kills sperm, adding to their effectiveness as contraceptives. The ***sponge*** is inserted deep into the vagina near the cervical opening, and serves as both a physical and chemical barrier to sperm. It is most effective as a contraceptive when used in combination with a spermicide ***and*** a condom. The ***diaphragm*** is a popular form of birth control, which must be prescribed and fitted by a doctor. It is made of strong, flexible latex rubber and is inserted into the vagina. It can be work up to 24 hours, which allows for the spontaneity many couples desire.

Table 11: Types of Contraceptives used by Men and Women Ages 15-44 in the U.S. - 1995
 (Strong/DeVault/Sayad, *Human Sexuality*, 3rd ed., 1999, Mayfield Publishing Company)

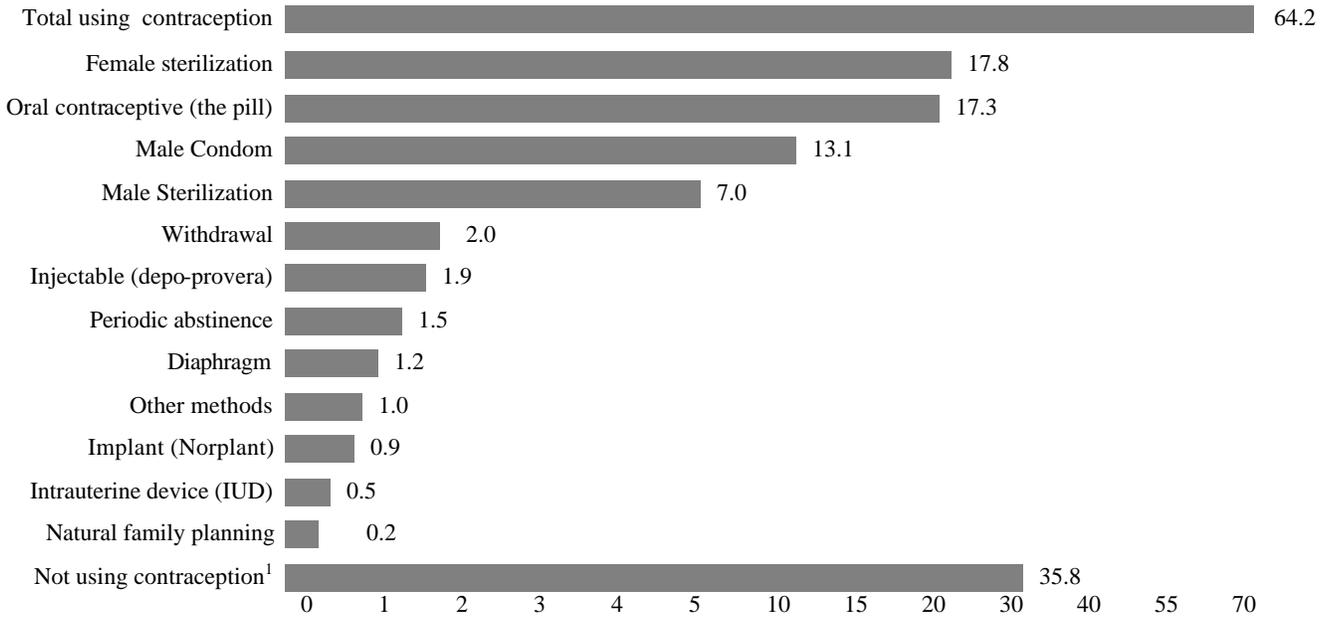
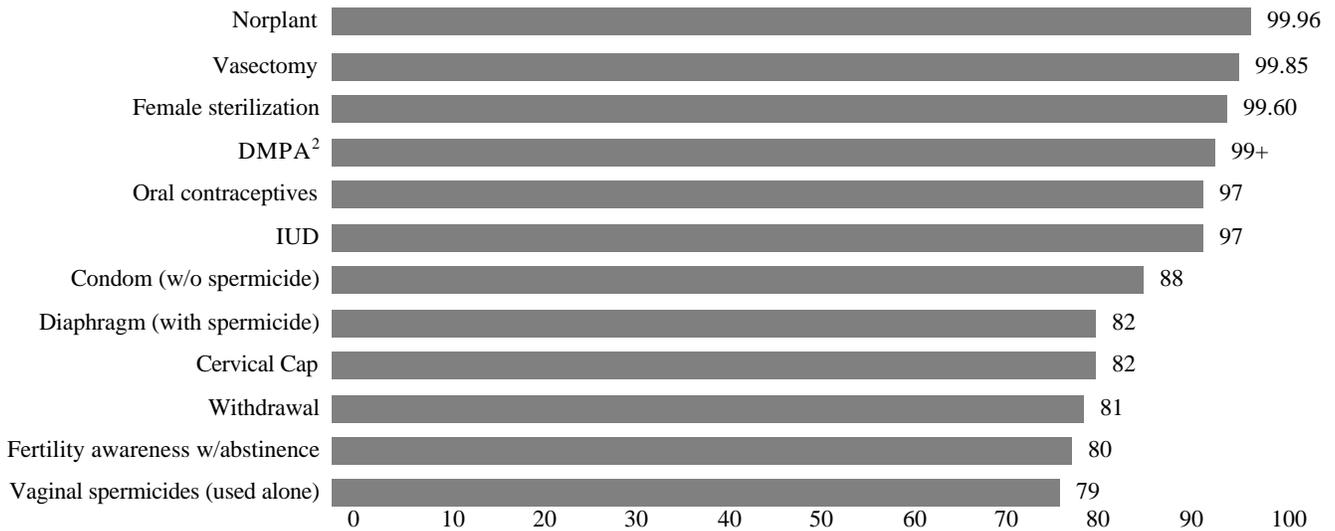


Table 12: Effectiveness Rates of Various Contraceptive Methods During First Year of Use
 (Strong/DeVault/Sayad, *Human Sexuality*, 3rd ed., 1999, Mayfield Publishing Company)



¹ Includes being surgically sterile, pregnant, seeking pregnancy, and not having intercourse

² Failure rates for Depo Provera vary but are usually less than 1%

Adolescent Pregnancy

In the United States, there are about 1 million teenagers that become pregnant each year. Approximately 70% of them do not receive adequate prenatal care.

Following a decline in the annual pregnancy rates among Arizona females aged 19 and younger from 1994 to 1997, Arizona experienced an increase in both the number of teen pregnancies and the teen pregnancy rate in 1998. The 1998 rate of 39.8/1,000 for females 19 and younger exceeded by 4.7% the 1997 rate of 38/1,000. The rate for 15-17 year old teens increased 5.2% from 44.6/1,000 in 1997 to 46.9/1000 in 1998. The pregnancy rate for older teens (18-19) increased 2.1% from 128.4/1,000 in 1997 to 131.1/1,000 in 1998 (see Table 11 below).

**Table 13. Number of Pregnancies¹ by Pregnancy Outcome, Ethnic Group and Year
Among Females 19 or Younger, with Rates² -- Arizona 1988-1998**
(Office of Epidemiology and Statistics – Arizona Department of Health Services)

Ethnicity/Pregnancy Outcome	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1998 Rates
WHITE³, total	6,549	5,935	6,011	5,861	5,530	5,335	5,452	5,286	5,249	4,413	4,729	25.4
Births	4,181	4,104	4,116	4,061	4,060	4,024	4,023	4,042	4,033	3,129	3,165	17.0
Abortions	2,368	1,831	1,895	1,800	1,470	1,311	1,429	1,244	1,148	1,179	1,480	7.9
HISPANIC, total	3,514	3,874	4,507	4,860	5,116	5,237	5,633	5,902	6,190	5,442	5,793	70.0
Births	3,099	3,459	3,941	4,255	4,543	4,688	5,075	5,351	5,628	4,800	5,046	61.0
Abortions	424	415	566	605	573	549	558	551	562	642	747	9.0
BLACK, total	724	729	712	768	730	728	713	590	617	559	647	46.7
Births	552	593	562	620	570	581	576	491	498	445	493	35.6
Abortions	172	136	150	148	160	147	137	99	105	107	147	10.6
AMERICAN INDIAN, total	1,206	1,179	1,165	1,151	1,138	1,121	1,150	1,057	1,056	903	988	36.4
Births	1,144	1,137	1,101	1,102	1,080	1,060	1,095	991	996	838	925	34.1
Abortions	62	42	64	49	58	61	55	66	54	58	53	1.9
ALL ETHNIC GROUPS⁴, total	12,385	12,013	12,769	13,037	12,885	12,890	13,407	13,356	13,521	11,667	12,630	39.8
Births	9,043	9,375	9,767	10,108	10,307	10,438	10,858	10,973	11,247	9,314	9,793	30.0
Abortions	3,282	2,488	2,940	2,862	2,476	2,357	2,458	2,294	2,186	2,233	2,735	8.6
PREGNANCY RATE, total	49.3	46.6	50.5	50.2	48.4	48.6	49.3	47.4	45.4	38.0	39.8	
Fertility rate ⁵	36.0	36.4	38.6	38.9	38.7	39.4	39.9	38.9	37.8	30.4	30.9	
Abortion rate	13.1	10.0	11.6	11.0	9.3	8.9	9.4	8.1	7.4	7.3	8.6	

Teenage moms have a higher rate of anemia and pregnancy induced hypertension. Babies are more likely to be born premature and/or suffer from low birth weight. The infants can be predisposed to mental retardation, brain damage and injury at birth. Some of these problems are due to the teenager's physical immaturity, the fact that they are, themselves, still growing, and poor nutrition. Because the pregnant teenager often denies the fact that she is pregnant, or ignores it, proper care for the growing baby is delayed.

¹ Fetal deaths are included in the total counts of pregnancies

² All rates per 1,000 females 19 or younger

³ Not of Hispanic origin

⁴ Includes other and unspecified ethnicity

⁵ Number of births per 1,000 females 19 years or younger

Arizona Birth Statistics for December 1999

Approximately 6,933 babies were born to Arizona mothers in December, 1999, 398 more than in November 1999. 38 out of every 100 were born to unmarried mothers, eleven were born to teens, and seven were born with low birthweight. 44 out of every 100 deliveries were paid for by public sources. Approximately 75% of mothers received prenatal care in the first trimester, and 89% had at least five or more prenatal visits. (See Table 12 for additional information.)

Table 14. Pregnancies by Pregnancy Outcome and County of Residence – Arizona – 1999
(AZ Department of Health Services, Public Health Services, Bureau of Public Health Statistics)

	Total Pregnancies	Births	Fetal Deaths	Abortions
Arizona	91761	80505	600	10656
Apache	1122	1104	8	10
Cochise	1806	1668	16	122
Coconino	1986	1804	10	172
Gila	691	672	3	16
Graham	502	476	3	23
Greenlee	146	141	2	3
La Paz	141	135	2	4
Maricopa	58399	51503	394	6502
Mohave	1762	1745	12	5
Navajo	1804	1751	11	42
Pima	13595	11866	87	1642
Pinal	2532	2401	21	110
Santa Cruz	796	754	6	36
Yavapai	1745	1627	6	112
Yuma	2949	2841	19	89
Unknown	1785	17		1786

Infertility

Infertility is a disease or condition of the reproductive system. It may have one or several causes and is diagnosed with a series of tests. Infertility includes difficulty conceiving, as well as the inability to carry a pregnancy resulting in a live birth.

Infertility is a medical problem, affecting 15% of couples in the United States. While infertility is on the rise, primarily because couples are delaying pregnancies to later ages, sophisticated tests and procedures are resulting in pregnancies that would not have been possible just a few years ago. Thorough testing, drug therapy, surgery and assisted reproductive technologies, such as in vitro fertilization are resulting in successful pregnancies.

There are two types of infertility: primary infertility, or the inability to conceive and carry a baby to delivery, and secondary infertility, which is the inability to conceive after having had at least one baby.

It is estimated that 8% of women between 20 and 29 are infertile; 15% between 30 and 34; 22% from 35 to 39; and 29% from 40 to 44. A man’s fertility also declines as he ages, though not as dramatically.

Researchers find that women's reproductive health problems are responsible for about 50% of infertility cases, while man's problems are responsible for 40%.

Menopause/Hormone Replacement Therapy

Menopause, also known as "the change of life" means the permanent cessation of the monthly menstrual period. It consists of two phases: perimenopause, which generally occurs at 45 to 47 years of age and can last five to seven years; and menopause, where menstruation ceases permanently for at least one year, usually occurring between 50 and 52.

One reason why menopause has recently become a leading women's health issue has to do with demographics. As women can now expect to live to an average age of 78, and since menopause generally occurs around the age of 50 the typical woman now lives as much as a third of her life after menopause begins.

Menopause is also taken more seriously now because of the serious impact it can have on a woman's health. New evidence that physical changes after menopause significantly increase a woman's risk of developing debilitating, life-threatening and costly diseases, particularly heart disease and osteoporosis, have cast menopause in a new light. Additional side effects of menopause may include hot flashes, vaginal dryness, nervousness, fatigue and depression.

Estrogen replacement therapy (ERT) has been a subject of great controversy in recent years, but the tide is definitely turning in favor of long-term ERT for the prevention of both osteoporosis and coronary artery disease. The benefits of hormone replacement therapy (HRT) are:

- ?? Less severe hot flashes
- ?? Relief of vaginal dryness and discomfort
- ?? Delay of the progression of osteoporosis
- ?? Reduced incidence of depression and fatigue
- ?? Decreased risk of heart disease, stroke, uterine cancer and possibly colorectal cancer
- ?? Reduced susceptibility to Alzheimer's Disease

The negatives of ERT/HRT may include:

- ?? Possible occurrence of a menstrual cycle
- ?? Possible risk of cancer of the endometrium
- ?? Swollen breasts, nausea, high blood pressure and water retention

However, ERT is not an option for those women with a *history* of breast or uterine cancer, estrogen-dependent ovarian cancer, a history of blood clots in the legs, pelvis or lungs, gallstones, large uterine fibroids, active liver disease and some circulatory disorders.

Headaches & Migraines

For millions of Americans, headaches are a significant medical problem. Recurring headache ranks seventh among complaints for people who seek medical advice. Headaches are part of a continuum ranging from mild headaches that appear occasionally to severe headaches that occur almost continually. Over time, a woman with a mild syndrome can develop a much more severe condition or, with treatment, can revert to milder symptoms.

Headaches

An extremely common problem in women, particularly during reproductive years, headaches occur more frequently, are more intense and disabling, as well as longer lasting in women than in men. In 15% of women, headaches are severe enough to interfere with daily activities. Reasons for this predominance in women appears to be related to the menstrual cycle. Studies indicate that estrogen hormones are among the most potent chemicals known to cause headache. In fact, several women develop headaches for the first time during menopausal years, when they are experiencing fluctuations and irregularities in hormone levels. Headache is only a symptom, caused by narrowing of the blood vessels.

Migraines

Migraine disease is a serious health and disability problem, affecting as many as 18 million Americans. It is estimated that up to 38 million Americans have migraine genetic propensity. In addition to being disabling, migraines can be life threatening. Migraine can induce strokes, aneurysms, vision loss, dental problems, coma and even death. Twenty seven percent of all strokes suffered by persons under the age of 45 are caused by migraine.

Contrary to popular myth, a migraine is not just a bad headache. While a headache is only a symptom caused by narrowing of the blood vessels, migraine is a disease caused by expansion of the blood vessels. During a migraine, inflammation of the tissue surrounding the brain exacerbates the pain. Medicine often prescribed to treat a headache dilates the blood vessels, thus making a migraine much worse.

Migraines are two to three times more common in women than in men. Unlike a headache, the migraine disease has many symptoms, including numbness, prickling, tingling, nausea, vomiting, intolerance to light or sound, depression and irritability. One migraine attack can last for several hours, days or, in extreme cases, even weeks. Some neurologists believe that not all of these episodes, which they call migraine equivalents, include a headache.

While the cause of migraine headaches is uncertain, many researchers favor the theory that they are due to a vulnerability of the nervous system to sudden changes in the body or in the environment. Several believe that migraine sufferers have inherited a more sensitive nervous system response than others.

Approximately 20% of women experience “classic migraine”, a premonition or aura about an hour before the migraine begins. Sometimes that aura is a small blind spot, flickering light or colorful and expanding zigzag lines. An aura might begin with numbness in the fingers of one hand, extending up the arm to the nose and mouth. Mood changes, hallucinations, experiences of déjà vu, and thinking and language disorders precede some migraines. These auras can last between 10 and 30 minutes.

Migraines are now recognized as having societal implications because of (a) their prevalence, (b) lost workdays, and (c) reduced effectiveness at work, home and school. According to a position paper published by the *American Academy of Pain Medicine*, 150 million work days per year, equivalent to 1,200 million work hours, are lost each year due to head pain. The corresponding annual cost to industry and the health care system due to migraine amounts to \$5 to \$17 billion.

Nutrition, Weight Management and Exercise

For thousands of years, people have recognized that the foods they eat affect their health and well-being. Women are particularly prone to a number of diseases that may stem from, or be exacerbated by, diet. While nutritional needs vary according to a person's age, sex and reproductive status, the body cannot produce some protein building blocks, vitamins, minerals and fats on its own, so it must obtain these from diet.

Nutrition

There is no doubt that the foods we eat affect how our bodies work. Certain basic nutrients are absolutely necessary for human health, while others have subtle effects on bodily processes. Poor diet and lack of physical activity account for at least 300,000 deaths each year in the U.S. and eight of the ten leading causes of death in the U.S. are related to diet and alcohol consumption. Yet, state health agencies estimate the number of public health nutritionists working in chronic disease programs is only *20% of the minimum number needed*.

Nutritional needs vary according to a person's age, sex and reproductive status. They also vary from individual to individual within those groups depending on a person's genetic makeup and life situation. While women certainly recognize the relationship between nutrition and health, they are barraged with confusing contradictory and often misleading information that is the result of fads or promotions rather than translating scientific information into messages that women may incorporate into their daily lives on a long-term basis.

Nutrition intervention has been shown to prevent and effectively treat heart disease in women. Good nutrition can prevent and alleviate most of the common risk factors associated with heart disease in women – high cholesterol, excess body weight and hypertension.

Between the ages of 10 and 15 (just before and during puberty), caloric requirements rise. In fact, unless a girl reaches a critical weight (the ratio of body fat to muscle), she will not begin to menstruate. Calcium absorption and retention increase prior to onset of the first period. This is necessary if the skeleton is to develop properly. Yet teenage diets frequently appear to be low in calcium. Irregular eating habits are characteristic of most adolescents and snacking is a normal pattern which should be used in meal planning; typically, one fourth of teen calories come from snacks. Often during these years, teenage girls subject themselves to low-calorie diets and fasts. The result of these diets can be not only nutritional deficiencies, but also the emergence of eating disorders, menstrual irregularities and possibly future fertility.

Adequate weight gain in pregnancy is usually a good sign that nutritional needs are being met. For most women, eating only about 300 extra calories a day is enough to produce the desirable weight gain. Pregnant teenagers require slightly more calories and protein than pregnant adults, as well as calcium and phosphorous daily (400 mg more per day than a pregnant adult) because their bones are still growing. Other women who may need extra nutrients or special diets during pregnancy include those who have had three or more pregnancies within two years (including

induced abortions and miscarriages), those who smoke cigarettes or abuse alcohol and drugs, those who have certain chronic diseases, and those who follow a vegetarian diet

Most women lose about 18 to 20 pounds within ten days of the birth. After that, the rate of loss slows down. Breastfeeding women, to ensure adequate milk supply, need extra fluids, calories, calcium and protein each day. Her caloric intake per day needs to increase by about 600 calories over pre-pregnancy. Some women find that nursing babies are bothered by such foods as broccoli, cauliflower, cabbage, Brussels sprouts, onion, garlic and chocolate – often developing diarrhea and colic or other symptoms of indigestion after the mother eats these foods.

After menopause, as the estrogen levels in the body increases susceptibility to osteoporosis and cardiovascular disorders, women are encouraged to increase their calcium and vitamin D while restricting the intake of fats, cholesterol and salt.

Many elderly women experience appetite loss, either because of depression, tooth and gum problems, medications and a diminished sense of taste. Nutritionists speculate that a sizable proportion of depression, memory loss and debility in elderly women can be attributed to nutritional deficiencies. At this time, it is wise that they include vitamin and mineral supplements in their diet, as well as eat a diet rich in fiber such as fruits, vegetables, and grains to diminish constipation.

The Arizona Nutrition Network is a network of public and private entities working together to promote basic, consistent nutrition education messages to American consumers using a social marketing strategy. The mission of AzNN is to shape food consumption in a positive way and to promote health, reducing disease among all people living in Arizona. Targeting low income single female heads of households with children, their goals are to promote basic, consistent messages to assist Arizonans in choosing diets that meet nutrient requirements, promote health, support active lives, and reduce chronic disease risks.

Weight Management and Exercise

A key to taking charge of health is to sustain a healthy weight. One fourth (24.8%) of Arizona adults are overweight and only a few (3.1%) of these individuals report trying to increase physical activity and change their diet to lose weight. More than 1 in 4 (26.4%) Arizona adults have been told they have high blood cholesterol. Yet, studies show that excessive weight gain and/or obesity may place women at higher risk for all five leading causes of death in which diet plays a role: heart disease, certain cancers, stroke, diabetes and atherosclerosis.

Strategies to maintain a healthy weight and prevent further gain are vital to improve women's health and quality of life. Some strategies might include:

- ?? Become more physically active
- ?? Eat healthy
- ?? Set realistic weight goals
- ?? Listen to your body
- ?? Find support

A complete fitness program for women generally includes three basic types of exercise, flexibility exercises, aerobic exercises and weight-bearing exercises. Women should also take into account the amount of exercise they get as part of daily life.

Most exercise physiologists recommend aerobic exercises be performed for at least 20 minutes three to five times a week. They should be preceded by five minutes of warm-up flexibility exercises and followed by five to ten minutes of cool-down exercises. Adolescent and premenopausal women should also incorporate some weight-bearing exercises into their regular exercise routine about two times a week. These strength-training exercises should involve 8 to 12 lifts for each major muscle group.

Psychological Issues

One in four families and one in five individuals will require the services of a behavioral health professional in their lifetime. More than 51 million American adults and children have a mental or emotional illness in a single year. The full spectrum of mental disorders affects 22% of the adult population in a given year. This section focuses on specific psychological diseases prevalent among women.

Depression

According to the National Mental Health Association, one in four women can expect to develop clinical depression during her lifetime regardless of age, race or income. This is not primarily due to biological differences between men and women, as was once believed, but to a variety of biological, social and psychological causes.

Depression is a brain disorder that affects thoughts, moods, feelings, behavior and physical health. Expressions of depression can range from sadness and low self-esteem to disabling apathy and suicidal behavior. It may develop in reaction to some outside event or have no apparent cause. According to the *Special Census of Maricopa County, Table 2 (10/27/95)*, there are 317,547.75 women in Maricopa County who will suffer from depression during their lifetime.

The American Psychological Association's Task Force on Women and Depression found that men suffer less depression, in part, because they employ different coping styles, i.e. action and mastery strategies, while women tend to brood and dwell on their problems, often with other women. For this reason, therapists often prescribe exercise as a partial antidote for depression in women, giving women an increased sense of self-discipline, control and mastery. Other research suggests that hormonal changes in women and genetics contribute to the incidence rate of depression in women.

While many recognize that depression can cause sadness, withdrawal, irritability and anxiety, it is also associated with fatigue, changes in eating and sleeping habits and several physical symptoms, including chronic pain. Clinical depression is a serious illness that cannot be ignored. It is, however, one of the most treatable of all medical illnesses. In spite of the fact that more than 80% of sufferers can be successfully treated with medication, psychotherapy or a combination, the *National Institute of Mental Health* estimates that by the year 2020, depression will be the second leading cause of disability in the world.

It is noteworthy to consider the effect of depression on chronic illness, particularly cancer, heart disease and stroke. Clinical depression occurs in about 10% of the general population, but it is seen in about 25% of people with cancer. Since depression adds to a patient's suffering and interferes with the motivation to engage in the cancer treatment, early diagnosis and treatment are important.

Research has also documented a high correlation between depression and increased risk of death or disability in patients with heart disease. The prevalence of various forms of depression is estimated from 40 to 65% in patients with a history of heart attack. In addition, 18-20% of coronary patients without a history of heart attack may experience depression. Major depression puts heart attack victims at greater risk and appears to add to the patients' disability from heart disease. In addition, they exhibit a 3-4 times greater risk of dying within six months than those not suffering from depression.

The association between depression and stroke has long been recognized for its impact on rehabilitation, family relationships and quality of life. Treatment of depression can abbreviate the rehabilitation process and lead to more rapid recovery. It can also save health care costs.

Stress

Simply put, stress is any kind of force or pressure. It can be physical, such as the stress of exercise or of a debilitating disease. It can also be emotional or situational, i.e. from a high-pressure job. Stress is a physical, mental or emotional strain in response to a demand, pressure or disturbance. When harnessed constructively, stress can fuel creativity, create excitement and produce energy. When prolonged or triggered too often without adjusting to balance its effects, it can threaten a person's health and well being.

Many women are highly susceptible to "drowning in a sea of stress". In addition to the traditional sources of stress – such as young children and aging parents, women today also are facing considerable stress in the workplace. Since the late 1960s, 300 hours of work have been added to a working woman's annual schedule. While both men and women often feel stressed on the job, women's stress is compounded by pay inequity (71% of men's with comparable training and responsibilities), lack of adequate health insurance and other benefits, and balancing work and family responsibilities.

Stress can cause significant problems to overall physical health. Some of the main physical consequences of stress include cardiovascular disease, aggravation of diabetic symptoms and degradation of the immune system. All of this is having a financial impact. Stress management programs, products and services totaled \$9.4 billion in 1995 with an estimated 22% annual growth. According to a 1998 survey published in the *Detroit Free Press*, 45% of Americans regularly use some form of stress management.

Stress-related disorders are also impacting American industry, costing businesses over \$150 billion annually. A 1998 study published in the *Journal of Occupational Medicine* indicates that workers reporting depression and elevated stress levels generate higher healthcare costs than those not affected by such conditions. Additionally, they reported that medical expenses were 46.3% higher for those workers.

Eating Disorders

Eating disorders are extreme expressions of a range of weight and food issues experienced by both men and women. They include anorexia nervosa, bulimia nervosa and binge eating disorder. All are serious emotional problems that can have life threatening consequences.

Research suggests that about one percent (1%) of female adolescents have anorexia. Another four percent (4%) college-aged women have bulimia. About 50% of people who have been anorexic develop bulimia and only five to ten percent (5-10%) of people with either eating disorder are male.

Five to ten million women and one million men in the U.S. are struggling with eating disorders. Recent studies reveal that over half of adult Americans, male and female, are overweight. About one third (34%) of these are obese, many of whom have binge eating disorder. Without treatment, up to 20% of people with serious eating disorders die. With treatment, that number falls to 3%. With treatment, about 60% recover and maintain a healthy weight. In spite of treatment, another 20% of people with eating disorders make only partial recoveries, and the remaining 20% show no improvement, even with treatment.

Anorexia nervosa is characterized by self-starvation and excessive weight loss. Anorexics weigh 85% or less than recommended for age and height. Menstrual periods stop in women and male sex hormone levels fall. The anorexic is terrified of gaining weight, even though s/he is markedly underweight. In addition, anorexia nervosa often includes depression, irritability, withdrawal, compulsive rituals, and unusual eating habits.

Bulimia nervosa is also called the diet-binge-purge disorder. It is characterized by episodes of binge eating, during which time the person feels out of control, and purges the contents by vomiting, abusing laxatives, excessively exercising or fasting. This person diets between these cycles and begins again.

Binge eating disorder is often called compulsive eating. This person binges frequently and repeatedly. They may eat rapidly and secretly, or may snack and nibble all day long. They do not regularly vomit, over-exercise or abuse laxatives. They have a history of diet failures and tend to be depressed and obese.

If not arrested, starving, stuffing and purging can lead to irreversible physical damage and even death. Eating disorders can affect every organ in the body and can cause irregular heartbeat, kidney and/or liver damage, destruction of teeth and a weakened immune system, among other things.

Eating disorders arise from a combination of long-standing, psychological, interpersonal and social conditions. Feelings of inadequacy, depression, anxiety and loneliness, as well as troubled family and personal relationships may contribute to the development of an eating disorder.

Some personality types (obsessive-compulsive and sensitive-avoidant, for example) are more vulnerable to eating disorders. New research suggests that abnormal levels of brain chemicals predispose some people to anxiety, perfectionism and obsessive-compulsive thoughts and behaviors. Also, once a person begins starving, stuffing and purging, those behaviors can alter the brain chemistry and prolong the disorder.

Eating disorders are treatable and people can recover from them. It is a difficult process that can take several months or even years. Some do better than others. The best success comes from working with physicians and counselors who help resolve medical and psychological issues that contributed to, or resulted from, disordered eating.

Domestic Violence

Although improvements continue in the prevention and treatment of domestic violence, we continue to witness disturbingly high rates of violence and abuse, inadequate accountability of batterers, and serious subsequent health problems among victims.

Domestic violence occurs when any of a pattern of assaultive behaviors, including physical, sexual, and psychological attacks, as well as economic coercion, are used by people against their families and/or intimate partners. As defined in the Maricopa Association of Governments Regional Domestic Violence Plan, domestic violence refers to violent behavior committed by one partner against another. It can include physical, sexual, or psychological abuse with the primary purpose of acquiring power and control over the other person.

Domestic violence is not peculiar to any social, economic or cultural backgrounds, as it occurs at all levels of society, in all socio-economic levels, and among people of all ethnic backgrounds. Domestic violence often occurs in a cycle, crossing generations. The cycle typically consists of three phases:

- ?? tension-building, characterized by abusive language and verbal threats;
- ?? acute battering, wherein physical harm occurs; and
- ?? the honeymoon phase, in which the batterer is apologetic and promises to end the assaultive behavior.

Too often, as a result of losing self esteem, the victim is unwilling or unable to leave the assaultive situation, and the battering continues. In fact, according to the U.S. Department of Justice, the most dangerous time for a woman who is being battered is when she leaves. In a recent study in Michigan, for example, 75% of women killed by their partners were murdered after the relationship was over. The U.S. Surgeon General reports that in over 90% of reported domestic assaults, the man is the perpetrator. Thus, while both men and women can be victims, the vast majority are women.

Statistics

In 1998, in the United States,

- ?? a woman is abused every eight seconds
- ?? one out of every four women is a victim of domestic violence at least once in her lifetime (according to the FBI)
- ?? domestic violence is the single leading cause of injury to American women and affects approximately four million victims every year
- ?? is the number one cause (35%) of emergency room visits by women
- ?? is the leading cause of death in the workplace for women, (according to the CDC) with over 13,000 incidents reported last year (in addition, 74% of battered women reported being harmed by their batterer while at work)

- ?? domestic violence costs businesses approximately \$5 billion in lost productivity, absenteeism, employee turnover and health care costs (yet only 28% of U.S. companies have workplace violence policies, according to the U.S. Department of Justice)
- ?? 20% of all women are battered by their partners on a repeated basis; and two-thirds of males who assault their wives once, repeat it within one year (according to the U.S. Surgeon General)
- ?? fifty per cent of all homeless women and children are fleeing domestic violence (yet there are three times as many animal shelters in this country as there are domestic violence shelters)

In 1998, in Arizona:

- ?? crisis shelters responded to 20,436 family violence telephone calls, and 14,619 crisis calls (i.e. sexual assault, suicide, etc.)
- ?? of the 26,717 women and children requesting shelter, 74% (or 19,775) were turned away due to no availability of beds
- ?? of the women receiving shelter care, almost 50% were Caucasian, 25% were Hispanic, 12% were Native American, and 10% were African-American

In 1998, in Phoenix and the surrounding communities:

- ?? police departments received approximately 80,000 calls reporting domestic violence
- ?? thirty women, eight men, and one unborn child were killed in domestic violence homicides in the Phoenix area, resulting in 66 children being without a parent

Battered Women, Economics and Health

In a report published by the Women's Bureau of the U.S. Department of Labor in 1996, 96% of female abuse victims who were employed had some type of problem in the workplace as a direct result of their abuse and/or abuser. These problems included being late (over 60%), missing work (over 50%), having difficulty performing job duties (over 70%), being reprimanded for problems associated with the abuse (over 60%), and losing their job (over 30%).

Domestic violence is often exacerbated as women seek to gain economic independence, and often increases when they attend school and training programs. Batterers often prevent women from attending such programs, as well as sabotage their efforts at self-improvement.

Several studies have shown direct correlation between domestic violence and health problems. This has been especially evident in the cases of welfare recipients who became homeless and/or sheltered. A higher incidence (up to three times that in the general female population) of mental health issues and post-traumatic stress disorder is recorded among battered women in this population. According to the *National Network to End Domestic Violence Fund*, many victims of domestic violence suffer from depression, mental health problems, post-traumatic stress disorder, drug and alcohol abuse, and physical health problems.

For women who are not homeless or in shelters, there is still a clear relationship between their victimization and health status. When loss of job and/or income occurs, as noted above, access to affordable health care becomes limited, and too often the symptoms of poor health remain unattended for financial reasons.

Responding to the Problem

The past decade has witnessed dramatic changes in the response to domestic violence throughout the United States. Most of these changes have occurred in the criminal and civil justice systems, program interventions, and prevention and education efforts. As a result, there is higher accountability of perpetrators, increased safety and protection of battered women, more availability of social services, hotlines and shelters, and a higher public awareness of the problems and solutions. There is also a growing awareness that domestic violence is a complex problem requiring comprehensive and coordinated community responses from a wide range of stakeholders, including the legal and criminal justice systems, social service agencies, health care providers, educational and religious institutions, the business/employer community, and policy-makers at all levels of government.

The passage of the *Violence Against Women Act* in 1994 (the first legislation related to domestic violence) presented several provisions pertaining to batterer accountability and victim protection. Perhaps most notably, the issuance of grants (e.g. STOP Grants and Community Policing Grants) were made available to states for the development and upgrading of victims services, training of law enforcement personnel, and developing better communications and data collection. Arizona's STOP Grant in 1999 was \$2.3 million.

In Arizona, the State Legislature has also been responsive to domestic violence issues, and through efforts driven by the Governor's Office for Domestic Violence, victim protection and perpetrator accountability have increased. As a result of a major effort of the Maricopa Association of Governments (MAG), a Regional Plan on Domestic Violence was developed in 1999, which provided a comprehensive framework for a coordinated community response to domestic violence.

The MAG Plan contains 41 recommendations covering four major areas:

- ?? prevention and early intervention;
- ?? crisis intervention and transitional response;
- ?? systems coordination and evaluation; and
- ?? long-term response.

In developing the plan, the planning group (comprised of over 150 active participants) found that the region already had many systems and protocols in place, and that the major needs centered around an integration of systems, uniform enforcement of protocols, and consistent tracking and sharing of domestic violence information. In addition, the group based their approach on similar models used by Tucson/Pima County and Yavapai County so that the resulting plan would provide consistency with other areas of the state.

Among the 41 recommendations contained in the MAG Regional Plan on Domestic Violence, several were directly related to health care issues for women. Some examples of these are briefly summarized as follows:

- ?? Standardize and implement annual training for all hospital personnel.
- ?? Implement universal screening and provide follow-up services to those who disclose in hospitals, other health-focused environments, substance abuse and mental health intakes.
- ?? Integrate domestic violence in the curriculum of medical, nursing, physician assistant, and nurse practitioner programs.
- ?? Create a policy change with Boards of Certification to require cross-training on domestic violence and mental health/substance abuse.
- ?? Incorporate domestic violence early prevention and early treatment into mental health and substance abuse treatment programs.
- ?? Establish/implement hospital protocols as mandated by the Health Resources and Services Administration.
- ?? Establish/implement emergency service pre-hospital protocol (fire/emergency departments).
- ?? Establish/implement medical/dental clinic and doctor office protocols.

Implications for Health Services for Women

The number of women who are victims of domestic violence far outnumber the number of women who actually seek help from the justice system and health-related services. While there have been positive trends in both the incidence of domestic violence and the program outcomes related to both victim protection and batterer accountability, there remains an urgent need to continue building on the coordinated community responses that appear successful.

The major implications for health care providers are two-fold:

- ?? they must remain attentive to the fact that many women may not be ready to address the domestic violence in their lives; and
- ?? they must provide services and resources that follow-up on screening and reporting policies.

Many women come into contact with health care providers because they require medical attention, but not because they are seeking help for domestic violence. Thus, effective support and education must be available in the health care setting. Likewise, screening and reporting policies must ensure that follow-up services are integrated and coordinated. It is not enough to simply provide victims with information on where to go next for help, and thus inter-agency and community-based referrals must be held accountable.

Summary

The purpose of this book, as stated in the introduction, was to introduce the reader to some of the most pressing health issues affecting women today. Health care is increasingly about education and prevention. A review of the status of health among women in Arizona demonstrates that, in 1998:

- ? ?the mortality rate from coronary heart disease decreased overall, yet increased among Blacks
 - ? ?the mortality rate from strokes decreased among all populations
 - ? ?the mortality rate for cardiovascular disease increased
- ? ?the mortality rate from cancer decreased overall, while increasing in colorectal cancer
 - ? ?the death rate from diabetes increased in 1998
- ? ?the number of new exposures to AIDS has decreased overall, yet increased among Blacks
- ? ?the rate of death from HIV infection showed a much slower decline among women than men
 - ? ?Arizonans were less likely to die from HIV infection than their national peers
 - ? ?the pregnancy rates of females under 20 increased for the first time since 1994
 - ? ?the reported abortion rate for females under 20 increased overall
- ? ?74% of women and children requesting shelter from domestic violence were turned away
 - ? ?thirty women and one unborn child were killed in domestic violence homicides

While these statistics and the narrative throughout this fact book indicate some improvements in the status of women's health in Arizona, they also dramatize the continuing challenges in other areas. Inequities in the status of health care among ethnic groups is apparent. The increase in the rate of teen pregnancy sounds an alarm to their increased risk of HIV and AIDS. The absence of adequate shelter for victims of domestic abuse can only have a negative impact on their homicide rate.

As decision makers ponder the direction of women's health care in Arizona, there is a clearly need for continued concentrated focus to insure that women's unique health needs are understood and addressed.

Resources

American Psychiatric Association
1400 K Street, N.W.
Washington, D.C. 20005
(888) 852-8330

American Psychological Association
Office of Public Affairs
750 First St., NE
Washington, D.C. 20002-4242
(202) 336-5700

Anxiety Disorders Association of America
11900 Parklawn Drive, Suite 100
Rockville, MD 20852-2624
(301) 231-9350

Arizona Coalition Against Domestic Violence
100 W. Camelback, Suite 109
Phoenix, Arizona 85013
602-279-2900
800-782-6400

Arizona Department of Health Services
Bureau of Public Health Statistics
Office of Epidemiology & Statistics
www.hs.state.az.us

Arizona Nutrition Network
Arizona Department of Health Services
Offices of Nutrition Services
(602) 542-1886

Centers for Disease Control & Prevention
Office of Women's Health
1600 Clifton Road, MS: D-51
Atlanta, GA 30033
Phone: (404) 639-7230

City of Phoenix Family Advocacy Center
2120 N. Central Avenue, Suite 250
Phoenix, Arizona 85004
602-534-2120

Governor's Commission on
The Status of Women in Illinois
February 1998

Indiana Takes Action for Women's Health 1999

M.A.G.N.U.M.
(Migraine Awareness Group: A National Understanding for Migraineurs)
113 S. St. Asapt St.
Alexandria, VA 22314
(703) 739-9384

Maricopa Association of Governments
302 N. First Avenue, Suite 300
Phoenix, Arizona 85003
602-254-6300
mag@mag.maricopa.gov

Mental Health Association of Arizona
6411 E. Thomas Rd.
Scottsdale, AZ 85251
Phone: (602) 994-4407

National Institute of Arthritis and Musculoskeletal and Skin Diseases
National Institutes of Health
Building 31, Room 4C05
31 Center Drive, MSC 2350
Bethesda, MD 20892-2350
(301) 496-8188

National Institute of Mental Health
6001 Executive Blvd.
Room 8184, MSC 9663
Bethesda, MD 20892-9663
(888) 8-ANXIETY

National Mental Health Association
1021 Prince Street
Alexandria, VA 22314-2971
(800) 969-NMHA

National Osteoporosis Foundation
1232 22nd St., NW
Washington, D.C. 20037-1292
(202) 223-2226

Office of Epidemiology and Statistics
Bureau of Public Health Statistics
Arizona Department of Health Services
Phone: (602) 542-1216

Our Bodies, Ourselves for the New Century
The Boston Women's Health Book Collective
A Touchstone Book
Published by Simon & Schuster
Copyright, 1984, 1992, 1998

RESOLVE National Office
1310 Broadway
Somerville, MA 02144-1731

The Commonwealth Fund
Health Concerns Across a Woman's Lifespan
1998 Survey of Women's Health

The Harvard Guide to Women's Health
Karen J. Carlson, MD
Stephanie A. Eisenstat, MD
Pub: Harvard University Press
Copyright 1996

US Department of Health & Human Services
National Institutes of Health
Rockville, MD 20857
(800) 421-4211

Women's Health Care – A Comprehensive Handbook
Edited by
Catherine Ingram Fogel and Nancy Fugate Woods
Sage Publications
Copyright 1995

For further information on domestic violence issues and resources in Arizona:

Community Information & Referral

602-263-8856

800-352-3792

National Domestic Violence Hotline

1-800-799-SAFE (7233)

National Sexual Abuse Hotline

1-800-656-HOPE (4673)

National Resource Center on Domestic Violence

1-800-537-2238

Shelter Hotline (CONTACS)-Maricopa County

602-263-8900

800-799-7739
