

Priority Area 15

Heart Disease and Stroke

Health Status Objective: Coronary heart disease

PHS Agency Assignment: National Institutes of Health

15.1 Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

(1.1)
(2.1)
(3.1)

Coronary deaths (age-adjusted per 100,000)	Baseline											2000
	Year	Baseline	1988	1989	1990	1991	1992	1993	1994	1995	1996	Target
Total population	1987	135	131	126	122	118	114	114	110	108	105	100
Special Population Target												
15.1a Black	1987	168	167	165	158	156	151	154	147	147	140	115
ICD-9 Codes: 402, 410-414, 429.2												

Data Source: National Vital Statistics System, CDC, NCHS.

Health Status Objective: Stroke

PHS Agency Assignment: National Institutes of Health

15.2 **Reduce stroke deaths to no more than 20 per 100,000 people.**
(2.22)
(3.18)

Stroke deaths (age-adjusted per 100,000)	Baseline												2000 Target
	Year	Baseline	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
Total population	1987	30.4 ^a	29.9	28.3	27.7	26.8	26.2	26.5	26.5	26.7	26.4	25.9	20.0
Special Population Target													
15.2a Black	1987	52.5	52.9	50.6	48.4	46.8	45.0	45.0	45.4	45.0	44.2	42.0	27.0
^a Baseline is revised. ^u Preliminary data. ICD-9 codes: 430-438													

Data Source: National Vital Statistics System, CDC, NCHS.

Health Status Objective: End-stage renal disease

PHS Agency Assignment: National Institutes of Health

15.3 Reverse the increase in end-stage renal disease (requiring maintenance dialysis or transplantation) to attain an incidence of no more than 13 per 100,000.

ESRD incidence (per 100,000)	Baseline											2000
	Year	Baseline	1988	1989	1990	1991	1992	1993	1994	1995	1996	Target
Total population	1987	14.4	15.5	17.2	18.4	20.5	22.3	22.7	25.8	27.5	27.6	13
Special Population Target												
15.3a Black	1987	34.0	36.6	40.9	43.0	48.6	52.7	53.6	61.1	65.1	65.1	30

Note: Persons with end stage renal disease requiring maintenance dialysis or kidney transplantation for survival are eligible for the Medicare ESRD program.

Data Source: End Stage Renal Disease Medicare Reimbursement Data, HCFA, Bureau of Data Management and Strategy.

Risk Reduction Objective: Controlled high blood pressure

PHS Agency Assignment: National Institutes of Health

15.4 (2.26) Increase to at least 50 percent the proportion of people with high blood pressure whose blood pressure is under control.

High blood pressure control	Baseline Year	Baseline	1988-1991	2000 Target
Adults 18-74 years with high blood pressure	1976-80	11%	29%	50%
Special Population Targets				
15.4a Males 18-74 years with high blood pressure	1976-80	6%	22%	40%
15.4b Mexican American 18-74 years with high blood pressure	1988-91	14%	...	50%
15.4c Females 70 years and over with high blood pressure	1988-91	19%	...	50%

Note: People with high blood pressure have blood pressure equal to or greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or take antihypertensive medication. Blood pressure control is defined as maintaining a blood pressure less than 140 mm Hg systolic and 90 mm Hg diastolic. Control of hypertension does not include nonpharmacologic treatment.

Data Source: National Health and Nutrition Examination Survey, CDC, NCHS.

Risk Reduction Objective: Taking action to control blood pressure

PHS Agency Assignment: National Institutes of Health

15.5 Increase to at least 90 percent the proportion of people with high blood pressure who are taking action to help control their blood pressure.

Taking action to control blood pressure	Baseline Year	Baseline ^a	1990 ^a	1991 ^b	1993 ^a	1994 ^b	2000 Target
Adults with high blood pressure	1985	79%	80%	71%	72%	71%	90%
Special Population Targets							
15.5a White hypertensive males 18-34 years	1985	51%	54%	34%	38%	30%	80%
15.5b Black hypertensive males 18-34 years	1985	63%	56%	40%	64%	50%	80%

^aActions to control blood pressure include medication, dieting to lose weight, cutting down on salt, or exercising.
^bActions to control blood pressure include taking medication or dieting to lose weight only.

Note: People with high blood pressure are defined in the National Health Interview Survey as those who are told on two or more occasions by a physician or other health professional that they had blood pressure equal to or greater than 140 mm Hg systolic and /or 90 mm Hg diastolic and/or taking antihypertensive medication.

Data Source: National Health Interview Survey, CDC, NCHS.

Risk Reduction Objective: Mean serum cholesterol level prevalence

PHS Agency Assignment: National Institutes of Health

15.6 (2.27) Reduce the mean serum cholesterol level among adults to no more than 200 mg/dL.

<u>Mean serum cholesterol level (mg/dL)</u>	<u>Baseline Year</u>	<u>Baseline</u>	<u>1988-94</u>	<u>2000 Target</u>
People 20-74 years	1976-1980	213 (213)	203	200
Males 20-74 years	1976-1980	211 (211)	202	200
Females 20-74 years	1976-1980	215 (214)	204	200

Note: Age-adjusted rates are shown in parentheses. All other rates are crude rates.

Data Source: National Health and Nutrition Examination Survey, CDC, NCHS.

Risk Reduction Objective: High blood cholesterol prevalence

PHS Agency Assignment: National Institutes of Health

15.7 **Reduce the prevalence of blood cholesterol levels of 240 mg/dL or greater to no more than 20 percent among adults.**
(2.25)

Prevalence of blood cholesterol
levels of 240 mg/dL or greater

People 20-74 years

Males 20-74 years

Females 20-74 years

Baseline
Year

Baseline

1988-1994

2000
Target

1976-1980

27%
(26%)

19%

20%

1976-1980

25%
(25%)

18%

20%

1976-1980

29%
(28%)

20%

20%

Note: Age-adjusted rates are shown in parentheses. All other rates are crude rates.

Data Source: National Health and Nutrition Examination Survey, CDC, NCHS.

Risk Reduction Objective: Taking action to reduce blood cholesterol

PHS Agency Assignment: National Institutes of Health

15.8 Increase to at least 60 percent the proportion of adults with high blood cholesterol who are aware of their condition and are taking action to reduce their blood cholesterol to recommended levels.

Aware of high blood cholesterol condition	Baseline Year	Baseline	1990	1991 ^a	1995	2000 Target
Adults 18 years and over with high blood cholesterol	1988	30%	44%	67%	60%	60%

^aSupplemental data not used for tracking.

Note: "High blood cholesterol" means a level that requires diet, and if necessary, drug treatment. Actions to control high blood cholesterol include keeping medical appointments, making recommended dietary changes (e.g., reducing saturated fat, total fat, and dietary cholesterol), and, if necessary, taking prescribed medication.

Data Sources: Baseline and 1990 Update: Health and Diet Survey, FDA. 1991 Update: National Health Interview Survey, CDC, NCHS. 1995 Update: Cholesterol Awareness Survey, NIH, NHLBI.

Risk Reduction Objective: Dietary fat intake

PHS Agency Assignment: National Institutes of Health

15.9 Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people
(2.5) aged 2 and older. In addition, increase to at least 50 percent the proportion of people aged 2 and older who meet the "Dietary Guidelines"
(16.7) average daily goal of no more than 30 percent of calories from fat, and increase to at least 50 percent the proportion of people aged 2 and older who meet the average daily goal of less than 10 percent of calories from saturated fat.

Average dietary fat intake among people 2 years and over	Baseline Year	Baseline	1988-94	1994	1995	1996	2000 Target
National Health and Nutrition Examination Survey							
Percent of calories from total fat	1976-80	36% ^{a,b}	34%	...	...	...	30%
Percent of calories from saturated fat	1976-80	13% ^{a,b}	12%	...	...	...	10%
Percent who met the goal for fat	1988-94	27% ^c	...	...	...	...	50%
Percent who met the goal for saturated fat	1988-94	29% ^c	...	...	...	...	50%
Continuing Survey of Food Intakes by Individuals							
Percent of calories from total fat	1989-91	34% ^b	...	33%	33%	33%	30%
Percent of calories from saturated fat	1989-91	12% ^b	...	11%	11%	11%	10%
Percent who met the goal for fat	1989-91	22% ^d	...	32% ^c	33% ^c	34% ^c	50%
Percent who met the goal for saturated fat	1989-91	21% ^d	...	34% ^c	35% ^c	36% ^c	50%

^aData are for persons up to 74 years only.
^bBased on 1-day dietary data.
^cBased on 2-day dietary data.
^dBased on 3-day dietary data.

Data Sources: 1976-80 Baseline and 1988-94 data: National Health and Nutrition Examination Survey, CDC, NCHS; 1989-91 baseline and 1994-96 Updates: Continuing Survey of Food Intakes by Individuals (CSFII) USDA;

Health Status Objective: Overweight

PHS Agency Assignment: National Institutes of Health

<p>15.10 (1.2) (2.3) (17.12)</p>	<p>Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12 through 19.</p> <p><i>Updates are from self-reported height and weight.</i></p>
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Overweight prevalence	Baseline Year	Baseline	1985	1990	1991	1992	1993	1994	1995	2000 Target
Adults 20 years and over	1976-80	26% ^{ua}	23%	27%	27%	28%	29%	30%	31%	20%
Males	1976-80	24% ^{ua}	24%	27%	27%	28%	30%	30%	31%	...
Females	1976-80	27% ^{ua}	23%	27%	27%	28%	29%	29%	30%	...
Adolescents 12-19 years	1976-80	15%	---	---	---	---	---	---	---	15%
Special Population Targets										
15.10a Low-income ^{ub} females 20 years and over	1976-80	37% ^{ua}	35%	37%	38%	39%	36%	38%	44%	25%
15.10b Black females 20 years and over	1976-80	44% ^{ua}	37%	42%	44%	44%	47%	48%	49%	30%
15.10c Hispanic females 20 years and over		---	27% ^{ua}	33%	32%	32%	33%	32%	35%	25%
Mexican-American females	1982-84	39% ^{ua}	---	---	37%	37%	33%	35%	40%	...
Cuban females	1982-84	34% ^{ua}	---	---	---	---	---	---	---	...
Puerto Rican females	1982-84	37% ^{ua}	---	---	---	---	---	---	36%	...
15.10d American Indian/Alaska Native 20 years and over	1984-88	29-75% ^{uc}	---	---	40%	36%	48%	34%	43%	30%
15.10e People with disabilities 20 years and over ^{ud}	1985	36% ^{ua}	---	---	35%	37%	38%	38%	40%	25%
15.10f Females with high blood pressure 20 years and over	1976-80	50% ^{ua}	---	---	---	---	---	---	---	41%
15.10g Males with high blood pressure 20 years and over	1976-80	39% ^{ua}	---	---	---	---	---	---	---	35%
15.10h Mexican-American males	1982-84	30% ^{ua}	---	---	33%	32%	34%	39%	44%	25%

ua20-74 years.
ubLow-income is defined as below the poverty threshold defined annually by the Bureau of the Census.
ucEstimates for different tribes.
udPeople who report any limitation in activity due to chronic conditions derived from self-reported height and weight.

Note: For people 20 and over, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for males and 27.3 for females. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males 12 through 14, 24.3 for males 15 through 17, 25.8 for males 20 through 19, 23.4 for females 12 through 14, 24.8 for females 15 through 17, and 25.7 for females 20 through 19. The values for adults are the gender-specific 85th percentile values of the 1976-80 National Health and Nutrition Examination Survey (NHANES II), reference population 20-29 years of age. For adolescents, overweight was defined using BMI cutoffs based on modified age-and-gender-specific 85th percentile values of the NHANES II. BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.

Data Sources: Baseline data for 15.10, 15.10a, b, f and g: National Health and Nutrition Examination Survey, CDC, NCHS. Baseline data for 15.10c and 15.10h, Hispanic Health and Nutrition Examination Survey CDC, NCHS. Baseline data for 15.10d: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Baseline data for 15.10e and all updates: National Health Interview Survey, CDC, NCHS.

Health Status Objective: Overweight

PHS Agency Assignment: National Institutes of Health

15.10 Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12 through 19.
(1.2)
(2.3)
(17.12) Examination Data: Measured Height and Weight

Overweight prevalence	Baseline	Baseline Yc	Baseline	1988-94	2000 Target
Adults 20-74 years		1976-80	26%	35% (ages 20+)	20%
Males		1976-80	24%	34% (ages 20+)	20%
Females		1976-80	27%	37% (ages 20+)	20%
Adolescents 12-19 years		1976-80	15%	24%	15%
Special Population Targets					
15.10a Low-income females 20-74 years ^a		1976-80	37%	47% ^b	25%
15.10b Black females 20-74 years		1976-80	44%	52% (ages 20+)	30%
15.10c Hispanic females 20-74 years		...	---	---	25%
Mexican-American females 20-74 years		1982-84	39%	50% (ages 20+)	...
Cuban females 20-74 years		1982-84	34%	---	...
Puerto Rican females 20-74 years		1982-84	37%	---	...
15.10d American Indian/Alaska Native 20 years and over		1984-88	29-75% ^c	---	30%
15.10e People with disabilities 20 years and over ^d		1985	36%	---	25%
15.10f Females with high blood pressure 20-74 years		1976-80	50%	---	41%
15.10g Males with high blood pressure 20-74 years		1976-80	39%	---	35%
15.10h Mexican-American males 20-74 years		1982-84	30%	37% (ages 20+)	25%

^aLow-income is defined as below the poverty threshold defined annually by the Bureau of the Census.

^b1988-91 data.

^cRange of estimates for different tribes.

^dBaseline is for people 20-74 years who report any limitation in activity due to chronic conditions, derived from self-reported height and weight.

1988-91 NHANES data show : 34% for adults 20-74 years and 33% for adults 20 years and over; 32% for males 20-74 years and 31% for males 20 years and over; 36% for females 20-74 years and 35% for females 20 years and over; 49% for black females 20-74 years and 49% for black females 20 years and over; and 36% for Mexican-American males 20-74 years and 39% for Mexican-American males 20 years and over.

Note: For people 20 years and over, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for males and 27.3 for females. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males 12-14 years, 24.3 for males 15-17 years, 25.8 for males 18 -19 years, 23.4 for females 12-14 years, 24.8 for females 15-17 years, and 25.7 for females 18-19 years. The values for adults are the gender-specific 85th percentile values of the 1976-80 National Health and Nutrition Examination Survey (NHANES II), reference population 20-29 years of age. For adolescents, overweight was defined using BMI cutoffs based on modified age-and-gender-specific 85th percentile values of the NHANES II. BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.

Data Sources: Baseline data for 15.10, 15.10a, b, f and g: National Health and Nutrition Examination Survey, CDC, NCHS. Baseline data for 15.10c and 15.10h, Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Baseline data for 15.10d: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Baseline data for 15.10e: National Health Interview Survey, CDC, NHIS. Updates: National Health and Nutrition Examination Survey, CDC, NCHS.

Risk Reduction Objective: Moderate physical activity

PHS Agency Assignment: National Institutes of Health

15.11 (1.3) (17.13) Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.

Light to moderate physical activity	Baseline Year	Baseline	1990	1991	1995	2000 Target
People 6 and over		---	---	---	---	30%
People 18-74 years						
5 or more times per week	1985	22% ^a	23% ^{a,b}	24%	23%	30%
7 or more times per week	1985	16% ^a	16% ^{a,b}	17%	16%	30%
Special Population Targets						
15.11a Hispanics 18 and over						
At least 30 minutes per day						
5 or more times per week	1991	20%	...	...	22%	25%

^aData are for people 18-64 years of age.
^bOperational definition was modified for subsequent tracking data.

Note: Light to moderate physical activity requires sustained, rhythmic muscular movements and is at least equivalent to sustained walking. Maximum heart rate equals roughly 220 beats per minute minus age. Examples may include walking, swimming, cycling, dancing, gardening and yardwork, various domestic and occupational activities, and games and other childhood pursuits.

Data Sources: National Health Interview Survey, CDC, NCHS.

Risk Reduction Objective: Cigarette smoking

PHS Agency Assignment: National Institutes of Health

15.12 Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 18 and older.
(3.4)
(16.6)

Cigarette smoking prevalence	Baseline Year	Baseline	1990	1991	1992 ^a	1993	1994	1995	2000 Target
People 18 and over	1987	29%	25%	26%	27%	25%	26%	25%	15%
Males	1987	31%	28%	28%	29%	28%	28%	27%	15%
Females	1987	27%	23%	23%	25%	22%	23%	23%	15%
Special Population Targets									
15.12a People with a high school education or less 20 & over	1987	34%	31%	31%	32%	30%	31%	30%	20%
15.12b Blue-collar workers 18 & over	1987	41%	36%	36%	36%	34%	39%	36%	20%
15.12c Military personnel	1988	42%	---	---	35%	---	---	32%	20%
15.12d Black 18 & over	1987	33%	26%	29%	28%	26%	27%	26%	18%
15.12e Hispanics 18 & over	1987	24% ^c	23%	20%	21%	20%	20%	18%	15%
15.12f American Indian/Alaska Native 18 & over	1979-87	42-70% ^b	38%	31%	40%	39%	40%	35%	20%
15.12g Southeast Asian males	1984-88	55%	35% ^c	---	---	---	---	---	20%
15.12h Females of reproductive age(18-44 years)	1987	29%	26%	27%	28%	26%	27%	26%	12%
15.12i Pregnant females	1985	25%	19%	20%	---	20%	---	18%	10%
15.12j Females who use oral contraceptives	1983	36%	26% ^d	---	---	---	---	24%	10%

^aIn 1992, definition of current changed to include some-day (intermittent) smokers.
^bEstimates for different tribes.
^cVietnamese males only.
^d1988 data.

Note: A cigarette smoker is a person who has smoked at least 100 cigarettes and currently smokes cigarettes.

Data Sources: For 15.12, 15.12a-b,d,e and h, National Health Interview Survey, CDC, NCHS; For 15.12c, Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DoD, OASD.
 For 15.12f, Baseline: CDC 1987 and Updates: National Health Interview Survey, CDC, NCHS. For 15.12g, Baseline: Local Surveys; and Update: Jenkins CH. Cancer risks and prevention practices among Vietnames refugees. Western Journal of Med 153:34-9. 1990. For 15.12i, Baseline and 1990 & 1991 updates: NHIS, 1993 update: National Health and Pregnancy Survey, NIH, NIDA. For 15.12j, Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.

Service and Protection Objective: Blood pressure screening

PHS Agency Assignment: National Institutes of Health

15.13 Increase to at least 90 percent the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high.

Knowledge of blood pressure values (people 18 years and over)	Baseline Year	Baseline	1990	1991	1993	1994	2000 Target
People given blood pressure values	1985	61%	76%	---	---	---	90%
People who can state blood pressure is high low, or normal		---	---	84%	85%	84%	...
Special Population Targets							
15.13a Mexican American males	1991	69%	...	...	68%	68%	90%

Note: Data refer to the percent of people who had their blood pressure measured within the preceding 2 years by a health professional or other trained observer.

Data Source: National Health Interview Survey, CDC, NCHS.

Services and Protection Objective: Blood cholesterol screening

PHS Agency Assignment: National Institutes of Health

15.14 Increase to at least 75 percent the proportion of adults who have had their blood cholesterol checked within the preceding 5 years.

<u>Blood cholesterol screening (people 18 years and over)</u>	<u>Baseline Year</u>	<u>Baseline</u>	<u>1990</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>2000 Target</u>
Within the preceding 5 years	1993	66%	...	...	...	---	75%
Ever checked	1988	59%	65%	63%	71%	75%	...
Within preceding 2 years	1988	52%	---	50%	54%	---	...
Special Population Targets							
<u>Ever checked</u>							
15.14a Black	1991	56%	...	...	68%	---	75%
15.14b Mexican American	1991	42%	...	...	55%	---	75%
15.14c American Indian/Alaska Native	1991	46%	...	...	60%	---	75%
<u>Past two years</u>							
15.14d Mexican American	1991	33%	...	...	38%	---	75%
15.14e American Indian/Alaskan Native	1991	38%	...	...	50%	---	75%
15.14f Asian/Pacific Islanders	1991	45%	...	...	44%	---	75%

Data Sources: 1988 Baseline: Health and Diet Survey, FDA; 1990 and 1995 data are from the Cholesterol Awareness Survey, NIH, NHLBI; 1991 and 1993 data are from the National Health Interview Survey, CDC, NCHS.

Service and Protection Objective: Appropriate diet and/or drug therapy for high blood cholesterol

PHS Agency Assignment: National Institutes of Health

15.15 Increase to at least 75 percent the proportion of primary care providers who initiate diet and, if necessary, drug therapy at levels of blood cholesterol consistent with current management guidelines for patients with high blood cholesterol.

Initiation of diet and drug therapy for high blood cholesterol	1986 Baseline	1990	1995	2000 Target
By primary care providers	---	---	---	75%
Median cholesterol level at which diet therapy is initiated (mg/dL)	240-259	200-219	200-219	...
Median cholesterol level at which drug therapy is initiated (mg/dL)	300-319	240-259	240-259	...

Note: Treatment recommendations at baseline are outlined in detail in the Report of the Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults, released by the National Cholesterol Education Program in 1987. Current treatment recommendations are described in the Second Report of the Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults released in 1993. Treatment recommendations are likely to be refined over time. Thus, for the year 2000, "current" means whatever recommendation are then in effect.

Data Source: Cholesterol Awareness Physicians Survey, NIH, NHLBI.

Services and Protection Objective: Worksite blood pressure/cholesterol education programs

PHS Agency Assignment: National Institutes of Health

15.16 Increase to at least 50 percent the proportion of worksites with 50 or more employees that offer high blood pressure and/or cholesterol education and control activities to their employees.

<u>Worksites with blood pressure/ cholesterol activities and education</u>	<u>Baseline Year</u>	<u>Baseline</u>	<u>1992</u>	<u>1995</u>	<u>2000 Target</u>
High blood pressure and/or cholesterol education and control activities	1992	35%	...	---	50%
High blood pressure activity	1985	16.5%	29% ^a	---	...
Nutrition education activity	1985	16.8%	31%	---	...
Blood pressure screening	...	---	32%	16%	...

^aIncluded classes, individual counseling and resource materials.

Data Sources: 1985 and 1992 data: National Survey of Worksite Health Promotion Activities, OPHS, ODPHP; 1995 update: Business Responds to AIDS Benchmark Survey, CDC, NCHSTP.

Services and Protection Objective: Laboratory accuracy in cholesterol measurement

PHS Agency Assignment: National Institutes of Health

15.17 Increase to at least 90 percent the proportion of clinical laboratories that meet the recommended accuracy standard for cholesterol measurement.

Achieving recommended accuracy
standard for cholesterol measurement

Baseline
Year

Baseline

1987

2000
Target

Clinical laboratories

1985

53%

84%

90%

Data Source: Comprehensive Chemistry Survey of Laboratories Using Enzymatic Methods, College of American Pathologists.