THE STATE OF HEALTH

Are we (really) healthy?

As a region, Hampton Roads has worked hard to increase the number and quality of its medical facilities. The merger of Sentara and Tidewater Health Care sealed Sentara's position as the region's largest health care provider and forced it to rise to the challenge of offering excellent, efficient medical care. It has proven itself by attaining a ranking of 6th among all of the health networks in the nation, its third consecutive year in the top 10. Only two other health care systems have been named to the top 10 list for this many years. In addition, Sentara Norfolk General Hospital was the only medical facility in southeastern Virginia or northeastern North Carolina to earn a spot in the *U.S. News & World Report* rankings of America's best hospitals. It was particularly noted for its excellence in cardiology and rheumatology. In addition to Sentara, Hampton Roads is home to 13 not-for-profit hospitals. Specializing in everything from oncology and orthopedics to pediatrics and sports medicine, they offer residents expert care in all areas of medicine, at all hours of the day.

New facilities and renovations also are in the works. In Suffolk, Obici Hospital has plans for a $74.6 million facility to expand its medical units and accommodate a greater number of patients. A $14 million Bon Secours Health Center also opened in the city to provide more comprehensive outpatient services, including an ambulatory surgery center, diagnostic center and physician's offices. One of the largest hospital projects is the $330 million replacement hospital for the federally owned Portsmouth Naval Hospital. As the largest Navy medical facility in the world, the hospital currently includes more than 330 beds, 700 outpatient-examining rooms, new equipment and other new buildings. While these are just a few examples, it is apparent that Hampton Roads has been highly responsive to the demands for improved medical care.

But how are we doing as individuals? Just how healthy are the citizens of Hampton Roads? In fairly good health, actually, though the answer truly depends on which indicators of health one focuses. Because there is not unanimous agreement on which measures of health are most important, assessments of health status are somewhat of a subjective matter. Traditional indicators include birth and death rates, life expectancy and leading causes of death. However, these indicators often do not reflect phenomena such as behavior, injury, violence and accessibility to health care, which clearly impact health status outcomes. Hence, this section is based on the findings of Healthy People 2010, a report that addresses the major health concerns of the nation decade by decade and serves as a health agenda for the United States, and its "Leading Health Indicators," a set of key health issues identified by the Office of Public Health and Sciences, U.S. Public Health Service agencies and the U.S. Department of Health and Human Services which takes into account both traditional indicators and an assessment of behavioral and social factors.

The indicators address consensus major public health concerns in the United States, as well as individual behaviors and health system issues that often affect the health of individuals and communities. When we measure a state or a region against these indicators, we can gain an understanding of the health of that state or region, and in the process generate interest in public and private measures that might improve public health.

Now, let's proceed with our checkup for Hampton Roads.

Physical Activity

Physical fitness is an important health indicator because it can help one maintain a healthy body and prevent premature death. Regular physical activity lowers the adult death rate by decreasing the risk of heart disease. In the United States, total cardiovascular disease mortality ranks as the leading cause of death. Eighty-four percent of heart disease deaths occur in people 65 and older, making it the number-one killer among the elderly. This trend also is apparent at both the state and regional level. In 1998, heart diseases were responsible for 15,820 lives in Virginia, a rate of 234.1 deaths per 100,000 people. This rate is higher than that of the Hampton Roads region, which had 3,324 heart disease-related deaths in 1998, or a rate of 210.4 per 100,000. Data for the individual cities and counties of Hampton Roads are depicted in Table 1.

Mathews County had by far the highest rate of heart disease at 575.5, followed by the City of Williamsburg, which showed a rate of 396.4 deaths per 100,000 people. Without question, a number of these deaths could have been prevented. Medical research has consistently shown that routine physical activity can increase muscle and bone strength and heighten the amount of lean muscle in the body. In addition, exercise can foster the likelihood of weight control. All of these factors combined can promote the longevity of life. The mortality rate for people with a low level of physical fitness is twice that for those who have even a moderate regimen of exercise.

TABLE 1

Heart Disease Rate of Hampton Roads, 1998

	Diseases of Heart	Heart Disease Rate (Per 100000)
State (Va.)	15,820	234.1
Gloucester	102	273.4
Isle of Wight	66	224.3
James City	97	228.4
Mathews	50	575.5
York	81	168.3
Chesapeake	345	189.8
Hampton	344	244.9
Newport News	428	234.9
Norfolk	621	241.5
Poquoson	29	231.7
Portsmouth	323	313.2
Suffolk	183	315.3
Virginia Beach	606	130.1
Williamsburg	49	396.4
Hampton Roads Total	3,324	210.4

Source: Virginia Health Statistics, Virginia Department of Health, Center for Health Statistics, 1998, http://www.vdh.state.va.us/stats

Obesity

There are increasing calls for a comprehensive national effort to curb the epidemic of obesity in this country. An individual is considered to be obese when his/her weight is a minimum of 20 percent above the "normal" body weight recommended on standard weight charts. Obesity is a leading indicator of health because it has the potential to raise the risk of high blood pressure, stroke, gallbladder disease, diabetes, breathing problems and cancer. Indeed, the problem is particularly critical with respect to "Type Two" diabetes, which exploded from 4.9 percent of the American population to 6.5 percent in the 1990s. A stunning 70 percent increase occurred among Americans ages 30-39.

Obesity rates have continued to soar over the years. In 1991, only 12 percent of the American population was considered obese; by 1998, it was 20 percent. Maryland, Virginia, Florida and Georgia showed the greatest increase of obesity – a startling 67 percent – during this period. Georgia, at 103 percent, had the largest percentage increase of all states, followed by New Mexico at 88 percent and Virginia at 80 percent. In Virginia, the percentage of obese adults increased from 10.1 percent to 18.2 percent between 1991 and 1998. The percentages of obese adults for all states are shown in Table 2.

The data are even worse for Hampton Roads. A 1997 study revealed that this region had the second-highest rate of obesity among all metropolitan areas in the country, 33.94 percent. Hampton Roads was second only to New Orleans, which had a rate of almost 38 percent. Since obesity is connected to a host of collateral health problems, including diabetes and heart attacks, this does not bode well for the typical resident of Hampton Roads.

TABLE 2

Percentage of Obese Adults by State	1991	1998	% Change in Affected Population
Georgia	9.2	18.7	103.3
New Mexico	7.8	14.7	88.5
Virginia	10.1	18.2	80.2
Washington	9.9	17.6	77.8
Maryland	11.2	19.8	76.8
Utah	8.7	15.3	75.9
Florida	10.1	17.4	72.3
California	10.0	16.8	68.0
Colorado	8.4	14.0	66.7
Missouri	12.0	19.8	65.0
Oregon	11.2	17.8	58.9
Alaska	13.1	20.7	58.0
Alabama	13.2	20.7	56.8
Massachusetts	8.8	13.8	56.8
New Jersey	9.7	15.2	56.7
Kentucky	12.7	19.9	56.7
Texas	12.7	19.9	56.7
Montana	9.4	14.7	56.4
Tennessee	12.1	18.5	52.9
West Virginia	15.2	22.9	50.7
Minnesota	10.6	15.7	48.1
Hawaii	10.4	15.3	47.1
South Carolina	13.8	20.2	46.4
North Carolina	13.0	19.0	46.2
North Dakota	12.9	18.7	45.0
Oklahoma	12.9	18.7	45.0
Vermont	10.0	14.4	44.0
New Hampshire	10.4	14.7	41.3
Illinois	12.7	17.9	40.9
Wisconsin	12.7	17.9	40.9
Maine	12.1	17.0	40.5
Mississippi	15.7	22.0	40.1
Nebraska	12.5	17.5	40.0
Idaho	11.7	16.0	36.8
Michigan	15.2	20.7	36.2
Connecticut	10.9	14.7	34.9
Iowa	14.4	19.3	34.0
Pennsylvania	14.4	19.0	31.9
Indiana	14.8	19.5	31.8
Ohio	14.9	19.5	30.9
Louisiana	16.7	21.3	27.5
New York	12.8	15.9	24.2
South Dakota	12.8	15.4	20.3
Arizona	11.0	12.7	15.5
Delaware	14.9	16.6	11.4

Source: USA Today, March 5, 1997, "New Orleans tops scales for obesity."

Tobacco Use

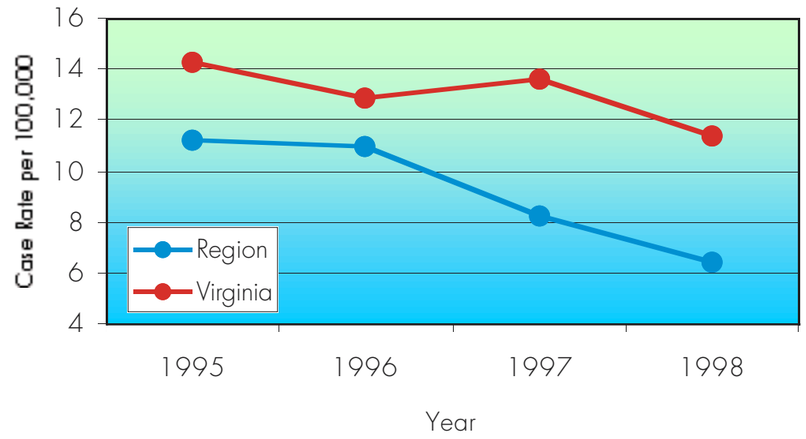
The use of tobacco is also a leading health indicator because research has proven that smokers are 10 times more likely to die as nonsmokers. Smoking doubles the risk of heart disease and is a primary cause of setbacks, such as bronchitis and emphysema. It accounts for 19 percent of all deaths in the United States. Tobacco-related deaths exceed 430,000 annually in this nation, costing 5 million years of potential life and $50 billion in direct medical costs.

Recent judicial actions and initiatives by the federal government are designed to cut youth smoking and thereby reduce smoking-related deaths by 46 percent in Virginia alone by 2004. In theory, between the years 2000 and 2004, 90,800 of Virginia's youth would be kept from smoking, and 29,100 spared a premature tobacco-related death. For Hampton Roads, the numbers would be 25,000 and 9,000, respectively.

Substance Abuse

The inappropriate use of alcohol and drugs is associated with many social health problems, such as sexually transmitted diseases, unwanted pregnancy and suicide, making substance abuse a leading health indicator. In fact, 5 percent of all deaths in the United States each year are attributed to alcohol alone. However, there is encouraging news in this arena for Hampton Roads. Although substance abuse is becoming a problem among youth on the national level, the number and rate of hospital discharges due to substance abuse has declined steadily since 1996 for children 18 and under in Hampton Roads. The rate was 11 discharges per 100,000 children in 1996, 8.2 in 1997 and 6.4 in 1998. This rate has also decreased for the state, but less rapidly. The rate of discharges due to substance abuse among children was 12.8 per 100,000 for the state of Virginia in 1996, 13.6 in 1997 and 11.4 in 1998. This trend is more clearly depicted in Graph 1.

GRAPH 1
Substance Abuse, Hospital Discharge Rate per 100,000
Children Age 0-18, 1995-98



Source: The Consortium for Infant and Child Health (CINCH), Report on the Health of Children in Hampton Roads, 2000.
http://www.pediatricresearch.org/cinch

Sexual Behavior

Irresponsible, unprotected sexual behavior is the major cause of unintended pregnancies and sexually transmitted diseases, including AIDS and HIV infection. However, greater reliance on abstinence and contraception has resulted in a steady decline in teenage pregnancy rates in the United States for the past seven years. The adolescent birth rate dropped to a record low of 30 births per 1,000 girls (ages 15-17) in 1998, showing a steady decrease from the rate of 39 births per 1,000 in 1991. This descending trend is also apparent at both the state and regional level. Teenage birth rates have declined almost 20 percent in Virginia since 1991. In 1998, total teenage pregnancies for all girls (ages 10-19) equaled 15,663, or a rate of 34.1 pregnancies per 1,000 girls. This rate has gone down every year since 1989, when the state's rate of teenage pregnancy was 47.4 per 1,000 girls. Concentrating exclusively on girls ages 15-17, the teen pregnancy rate was 41.8 per 1,000 girls in 1998, which is much higher than that for the entire country.

TABLE 3

Teen Pregnancy per City and County in Hampton Roads, 1998

	# Teenage Pregnancies	Female Pop. Age 10-19	Preg. Rate, per 1,000 Age 10-19
State (Va.)	**15,663**	**459,326**	**34.1**
Gloucester	71	2,873	24.7
Isle of Wight	58	1,977	29.3
James City	45	2,769	16.3
Mathews	13	505	25.7
York	68	3,936	17.3
Chesapeake	519	13,930	37.3
Hampton	70	10,507	6.7
Newport News	678	13,646	49.7
Norfolk	1,081	17,404	62.1
Poquoson	8	938	8.5
Portsmouth	436	7,261	60.0
Suffolk	197	4,192	47.0
Virginia Beach	1,052	35,984	29.2
Williamsburg	45	1,407	32.0
Hampton Roads Total	**4,341**	**117,329**	**37.0**

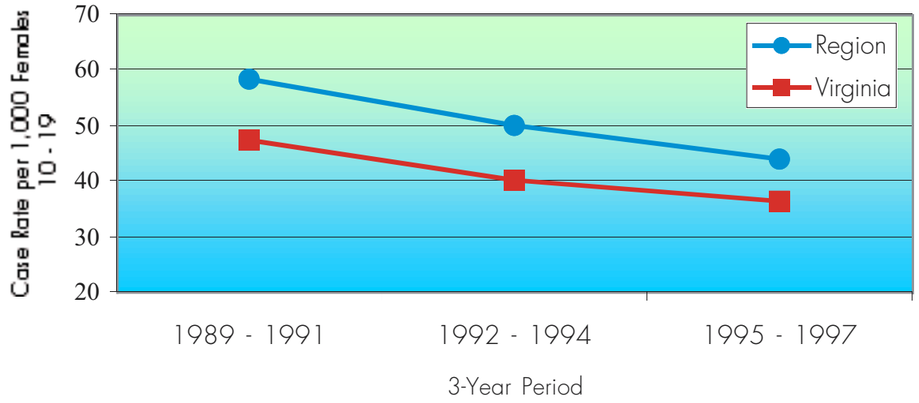
Source: Virginia Health Statistics, Virginia Department of Health Statistics, 1997-98, http://www.vdh.state.va.us/stats

On a regional level, the number of teenage pregnancies in Hampton Roads reached 4,431 in 1998, or 37 per 1,000 girls. While this rate has shown improvement since 1989, when the pregnancy rate was 58.4, Hampton Roads still appears worse than the state in regard to teen pregnancy. This trend is more clearly shown in Graph 2. A list of data for all the cities and counties in the region is also exhibited in Table 3.

Teenage pregnancy often has a negative impact on the infant mortality rate because young mothers frequently give birth to low-birth-weight infants. The 1998 infant mortality rate of 7.2 deaths per 1,000 live births remained the same as the previous year for the United States. This national rate is only slightly better than Virginia's 7.4 rate. However, the Commonwealth's mortality rate has been falling constantly since 1989 ,when it was recorded at 10 deaths per 1,000 infants. Unfortunately, the infant mortality rate in Hampton Roads remains higher than that of both the state and the nation, and this trend is easily seen in Graph 3.

GRAPH 2

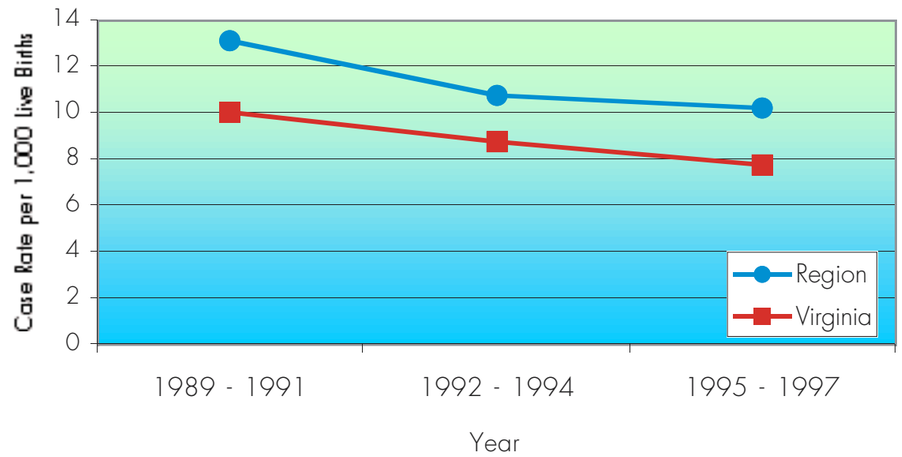
Teenage Pregnancy Rate per 1,000 Females Ages 10-19, 1989-97



Source: The Consortium for Infant and Child Health (CINCH), Report on the Health of Children in Hampton Roads, 2000. http://www.pediatricresearch.org/cinch

GRAPH 3

Infant Mortality Rate per 1,000 Live Births, 1989-97



Source: The Consortium for Infant and Child Health (CINCH), Report on the Health of Children in Hampton Roads, 2000. http://www.pediatricresearch.org/cinch

While the regional rate has diminished over the years, at 10.6 (see Table 4), it is still very high. The decrease, though, cannot be attributed to improved birth weights because those rates have remained essentially unchanged at 9 percent over the years. Again, this regional rate of low-birth-weight infants (less than 5.5 pounds) is still higher than both the national rate of 7.6 percent and Virginia's rate of 7.9 percent. Based on these figures, it is clear that more strategies and educational programs should be implemented in an effort to control the rates for unwanted pregnancy, infant mortality and low-birth-weight babies.

Sexually transmitted diseases are the other result of irresponsible sexual behavior. HIV infection and AIDS continue to claim many lives in the United States every year. Virginia ranks 15th in the nation in the number of AIDS cases with 1,000 new cases turning up each year. Within the state, Norfolk ranks the highest of all cities with 325 new cases each year. Nationally, Norfolk ranks 34th among all U.S. cities for the incidence of AIDS cases. This is nearly twice the number of cases found in Richmond, and more than all of Northern Virginia combined. For this reason, the Hampton Roads region must make greater efforts to curb unprotected sexual behavior and decrease the rate of HIV/AIDS infection.

Unfortunately, HIV/AIDS has also afflicted the children and youth of Hampton Roads at an alarming rate in the past decade. The hospital discharge rate of children 18 and under, due to HIV and AIDS, skyrocketed to 13.4 per 100,000 children in 1997, from 2.9 per 100,000 in 1995. Thankfully, this rate fell to 5.9 in 1998 as a result of increased education and information. In fact, vertical transmission (mother to baby) rates have decreased to 2 percent in Hampton Roads due to increased prenatal care and preventive therapy. While this shows some improvement, the region's discharge rate is still much worse than the state's 1998 rate of 2.6 per 100,000 children. These trends are depicted in Graph 4.

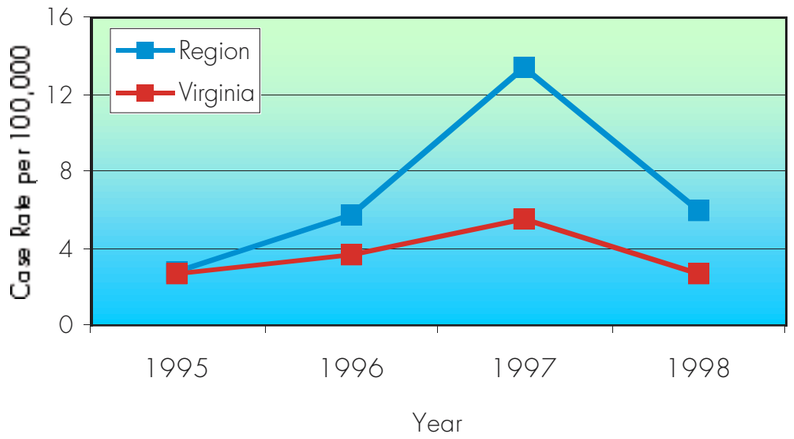
TABLE 4

Infant Mortality Rates of Cities and Counties of Hampton Roads, 1998

	Total Infant Deaths	Total Live Births	Death Rate per 1000 Births
State (Va.)	**695**	**94,114**	**7.4**
Gloucester	2	386	5.2
Isle of Wight	1	358	2.8
James City	2	423	4.7
Mathews	1	74	13.5
York	7	547	12.8
Chesapeake	30	2,818	10.6
Hampton	17	2,038	8.3
Newport News	44	3,124	14.1
Norfolk	49	4,018	12.2
Poquoson	1	101	9.9
Portsmouth	24	1,644	14.6
Suffolk	7	884	7.9
Virginia Beach	57	6,363	9.0
Williamsburg	2	144	13.9
Hampton Roads Total	**244**	**22,922**	**10.6**

Source: Virginia Health Statistics, Virginia Department of Health Statistics, 1997-98, http://www.vdh.state.va.us/stats

GRAPH 4
HIV and AIDS Hospital Discharge Rate per 100,000 Children Ages 0-18, 1995-98



Source: The Consortium for Infant and Child Health (CINCH), Report on the Health of Children in Hampton Roads, 2000. http://www.pediatricresearch.org/cinch

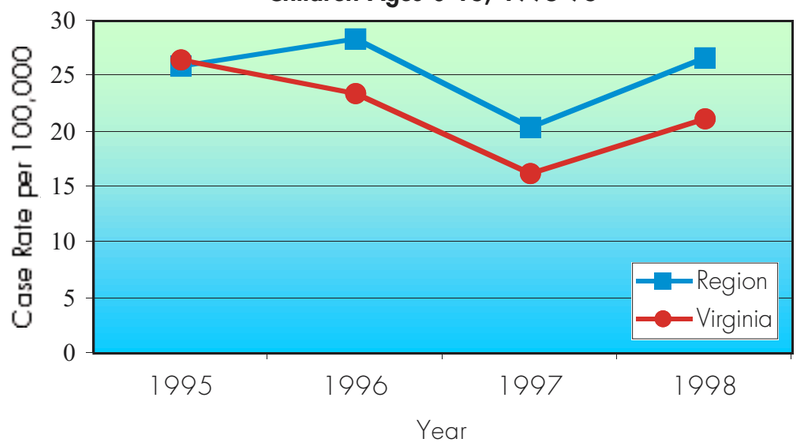
Mental Health

Mental illnesses affect roughly 20 percent of the U.S. population each year. It is the nation's younger and elderly populations that are the most affected. In fact, in Virginia, the greatest hospitalization costs for children and youth are associated with mental health conditions. Statewide and regionally, the number and rate of mental health hospitalizations increased slightly from 1995 to 1998. The rate of hospital discharges for Hampton Roads children 18 and under, as a result of mental health cases, was 481.2 per 100,000 children. This was much lower than the state rate of 516.1 cases.

Mood disorders constitute the most frequent reason for mental health-related hospitalizations among children and youth. While Hampton Roads had a rate of 326 hospitalizations per 100,000 children for mood disorders, the state of Virginia reported a rate of 351.2 per 100,000 children. Hospitalizations for behavioral and psychotic disorders have also increased among children over the years. In 1998, when the region showed a discharge rate of 50.3 per 100,000 children for behavior disorders, the state had a rate of only 37.2. The number of visits for psychotic disorders among children also increased substantially from 1995 to 1998. However, these visits comprised only 1 percent of all outpatient visits. Nonetheless, Hampton Roads' discharge rate of 43 cases per 100,000 children was much higher than Virginia's rate of 35.8 in 1998. Compared to the state, Hampton Roads had a lower rate of hospitalizations for mood disorders, and a higher rate of hospitalizations for both behavior and psychotic disorders.

The number and rates of hospital discharges of children due to developmental disorders has also increased substantially on both the state and national level since 1996. In 1998, Virginia had a higher rate of discharges due to developmental disorders (3.1 per 100,000 children) than did Hampton Roads, which had a rate of 2.5 discharges per 100,000. **The diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) has especially increased for the children of Hampton Roads over the last decade.** This trend is displayed more clearly in Graph 5. In 1998, the rate of hospital discharges due to ADHD was 26.6 per 100,000 children for Hampton Roads. This was much higher than the state's rate of 21.1.

GRAPH 5
ADHD Hospital Discharge Rate per 100,000 Children Ages 0-18, 1995-98



Source: The Consortium for Infant and Child Health (CINCH), Report on the Health of Children in Hampton Roads, 2000. http://www.pediatricresearch.org/cinch

Depression is by far the most common mental disorder among all people in the United States, affecting 19 million adults each year. This disease is also the cause of two-thirds of all suicides, the most serious outcome of mental health conditions. In 1998, Virginia experienced 827 suicides, for a rate of 12.2 suicides per 100,000 people, compared to the Hampton Roads rate of 9.4. The number and rate of suicides among children has also decreased steadily in Hampton Roads, but it increased slightly for the entire state from 1990-97. In 1997, the suicide rate was 2.6 per 100,000 children for the region, and 3.1 for Virginia. Both the state and the region must take extra precautions to modify outpatient delivery systems and develop prevention services in order to curb the occurrence of mental disorders, depression and suicide.

Injury and Violence

Every day, more than 400 Americans die from unintentional injuries associated with such factors as motor vehicle crashes, firearms and drownings. Unintentional injury is the number-one cause of morbidity and mortality in children and youth. For Hampton Roads, hospital discharge rates of children due to injury have remained fairly steady since 1995. The regional rate of hospital discharges of children has also been consistently below the rate for Virginia. In 1998, the rate for Hampton Roads was 303.2 per 100,000 children, and for Virginia it was 367.9. However, within Hampton Roads, the cities of Virginia Beach, Norfolk, Chesapeake, Newport News and Portsmouth together account for 72 percent of total hospitalizations for unintentional injury. It is apparent that interventions to reduce injury should be especially focused on these areas.

After falling steadily since 1995, the number and rate of hospitalizations of children due to self-inflicted injuries increased in 1998, both for the region and the state. However, the regional rate was much lower when compared to the state's hospital discharge rate of children for self-inflicted injuries. While the rate for Hampton Roads was 19.8 per 100,000 children, it was 30.2 for Virginia.

Violent crime also continued to decrease over the last decade. This was especially true for violent crimes committed by young people. In 1998, the national offending rate for youth was 27 crimes per 1,000 adolescents ages 12-17. This rate dropped by more than half from the 1993 high, and was the lowest recorded since data was first collected in 1973. This trend has helped to greatly decrease the number and rate of deaths among children and youth as a result of unintentional injuries, homicides and suicides since 1990. In 1997, the death rate for the state, 23.1 per 100,000 children, exceeded that of the region, 22.2 per 100,000 children.

The rate per thousand of founded cases of child abuse has been relatively stable over recent years throughout both the region and state. However, Hampton Roads appears worse than Virginia in regard to child abuse and neglect case rates. In 1998, the abuse rate in Hampton Roads was 7.1 per 1,000 children, while the state's rate was six cases per 1,000 children.

Immunizations

Vaccines are a leading health indicator because they greatly reduce health risks from preventable diseases and control the spread of infection. The rates for preschool immunization for the nation, state and region have improved overall. In the United States, the childhood immunization rate has steadily improved, with 79 percent of children ages 19-35 months receiving a combination vaccination series in 1998, up from 76 percent in 1997 and 69 percent in 1994. The 1993 Childhood Immunization Initiative may be one factor attributing to this improvement. In Virginia in 1998, 96 percent of 2-year-olds received vaccines for diphtheria, tetanus and pertussis; 91 percent received the vaccine for polio; 90 percent were vaccinated for measles; and 94 percent received vaccines for haemophilus influenza type b, the major cause of meningitis. Preschool immunizations have also improved greatly in Hampton Roads, but the rates for every immunization are lower than for the state. In 1997, Hampton Roads' immunization rate for children at 24 months was 70 percent, lower than the state's 77 percent. This means that in the region, 30 percent of all 2-year-old children are not adequately immunized. In Virginia, roughly 23 percent of all 2-year-olds remain inadequately immunized.

The percentage of children receiving immunizations from the private sector was much higher than the percentage of those obtaining it from the public sector. In fact, on the national level, while the percentage of children without health insurance remained steady at 15 percent, the percentage with private insurance increased to 68 percent in 1998. This tendency may have resulted from the fact that many children have several health care providers, which makes it difficult for a particular provider to know a child's immunization needs. Thus, the implementation of a computerized immunization information system would improve immunization delivery by giving providers access to complete records. This might also help to increase the number of children receiving immunizations overall.

Access to Care

Strong indicators of access to health care include having health insurance, a steady income and a primary health care provider or a source of ongoing care. Health insurance provides access to health care, yet more than 44.3 million people (16.3 percent of the population) in the United States had no health insurance or usual source of health care in 1998. In Virginia, 14.1 percent of the population was without health insurance in 1998. This was an increase from the 12.5 percent of the uninsured population in 1996 and 1997. Children are the population most likely to suffer as a result of not having access to medical care. In 1996, approximately one in seven children in this country had no health coverage. This means that an estimated 11.1 million children, or 15 percent of the child population, went without health insurance.

Although some efforts are being made to increase medical care, a large uninsured population continues to exist. In 1997, the Clinton administration passed the federal Child Health Insurance Program (CHIP) to provide the means for uninsured children to have routine access to needed medical care. As the largest single investment in health care for children since 1965, CHIP allocated an unprecedented $24 billion over five years to cover as many as 5 million children in the nation. The plan did succeed in allowing 2 million children nationwide to be granted health care coverage, including 16,895 in Virginia.

Conclusion

The development of programs in response to any of the health indicators mentioned in this report may have a profound effect on enhancing the quality of life and overcoming health disparities. Whereas Hampton Roads has made significant improvement in areas such as teen pregnancy, childhood immunization and mental disorders, it lags behind the Commonwealth in the areas of infant mortality, child abuse and neglect, and obesity. It is hoped that the region will continue to strive for new and improved medical coverage for its citizens.