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## THE STATE OF WASHINGTON'S CHILDREN

*Fall 2001*

This is the ninth annual report on The State of Washington's Children. It was produced by the University of Washington School of Public Health and Community Medicine in collaboration with the University of Washington Human Services Policy Center in the Evans School of Public Affairs. This report is part of the Washington Kids Count Project, which receives major funding from the Annie E. Casey Foundation.

University of Washington

School of Public Health and Community Medicine

*fall 2001*

## SUMMARY

This is our ninth annual report on The State of Washington's Children. As in the past, we have used a variety of information sources to compile a comprehensive and up-to-date picture of the health and well-being of children in our state. Here are some of the highlights:

- Teen pregnancy and birth rates continue to decline. Still, births to unmarried women approximate 30 percent of the births in our state.
- Almost forty percent of births in Washington are mistimed or unwanted.
- Economic inequalities continue to grow, while our state faces slowing economic growth. Care will be needed to create social service and economic strategies that protect our most vulnerable children.
- Economic inequalities do not occur randomly. Education, family structure, access to capital, and area of residence all play key roles in income distribution and can be addressed through public policies.
- Child care costs continue to rise, averaging one-fifth of a working parent's income.
- Binge drinking and marijuana use by high schoolers has declined.
- Mental health, oral health, and prevention will be the new challenges in the decade to come.
  - Mental health is now the single most common reason for hospitalization among teens. Hospitalizations and mortality from suicide continue at alarmingly high levels.
  - Dental decay is widespread and dental care is difficult to find for almost one-third of children.
  - Immunizations levels are declining and obesity is increasing markedly in our state.
- Less than half of 4th, 7th, and 10th graders met basic math standards on the Washington Assessment of Student Learning in 2000.
- Children of color lag behind white students in both reading and math, with the gap in math performance continuing to widen.
- How much money a school district spends and how it spends that money impacts average test scores.
- Injuries continue to be the major cause of death among children, accounting for approximately half of all deaths in adolescents.
- Motor vehicles and firearms are the leading causes of deaths among adolescents, far outweighing infections, cancers, and other medical causes.

*summary*



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## THE STATE OF WASHINGTON'S CHILDREN

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*fall 2001*

# recent trends



## WHAT'S BETTER

## WHAT'S NOT BETTER

### FAMILY & COMMUNITY INDICATORS

<b>Teen Birth Rate</b> <i>(per 1,000 15 to 17-year olds)</i>	1998 24.2	↓	1999 22.4	<b>Births to Unmarried Mothers</b> <i>(percentage of all births)</i>	1998 28.0%	■	1999 27.9%
<b>Teen Pregnancy Rate</b> <i>(per 1,000 15 to 17-year olds)</i>	1998 42.5	↓	1999 39.2	<b>Children Living in Out-of-Home Care</b> <i>(total number, unduplicated)</i>	1999 16,361	↑	2000 19,103
<b>Divorces Involving Children</b>	1998 15,518	↓	1999 14,714				

### ECONOMIC WELL-BEING INDICATORS

<b>Average Real Wages</b> <i>(in 1999 dollars)</i>	1998 \$33,801	↑	1999 \$35,742	<b>Annual Childcare Cost</b> <i>(in 1999 dollars)</i>	1997 \$5,065	↑	1998 \$5,397
<b>Per Capita Income</b> <i>(in 1999 dollars)</i>	1998 \$29,445	↑	1999 \$30,544	<b>Childcare Cost as a Percentage of Take-home Wages</b>	1997 19.2%	■	1998 19.4%

### HEALTH INDICATORS

<b>Binge Drinking (5+ drinks) in the past two weeks</b>	1998		2000	<b>Low Birthweight Rate</b> <i>(percentage of all births)</i>	1998 5.7%	■	1999 5.8%
8th Graders	18.3%	↓	14.9%	<b>Percentage of 2-year olds Fully Immunized</b>	1998 85.7%	↓	1999 77.4%
10th Graders	27.7%	↓	23.2%	<b>Mortality from Medical Conditions</b> <i>(deaths per 100,000 1 to 9-year olds)</i>	1998 11.5	↑	1999* 13.2
12th Graders	32.7%	↓	31.8%	<i>(deaths per 100,000 10 to 19-year olds)</i>	11.0	■	10.7
<b>Marijuana use in the past 30 days</b>	1998		2000	<b>Suicide Mortality</b> <i>(deaths per 100,000 15 to 19-year olds)</i>	1998 9.9	↑	1999* 14.8
8th Graders	16.5%	↓	12.0%	<b>Percentage of Head Start Children with Unmet Dental Needs</b> <i>(Department of Health Smile Survey 2000)</i>	1994 21.3%	↑	2000 28.9%
10th Graders	26.6%	↓	21.9%				
12th Graders	28.7%	■	24.4%				
<b>Used Smokeless Tobacco in the past 30 days</b>	1998		2000				
8th Graders	6.7%	↓	2.1%				
10th Graders	9.6%	↓	4.6%				
12th Graders	12.4%	↓	8.8%				

\* 1999 data for these outcomes have been computed using the ICD-10, while the 1998 have been computed using the ICD-9. Therefore, results may not be directly comparable.

# recent trends

## WHAT'S BETTER

## WHAT'S NOT BETTER

### EDUCATION INDICATORS

Percentage of Students Taking the WASL Meeting Adequate Standards	1999	2000	Children of Color vs. White Children — Extent of the Gap	1999	2000
<i>4th Grade Reading</i>	65%	72%	<i>4th Grade Reading</i>	3.3%	3.5%
<i>4th Grade Math</i>	41%	46%	<i>4th Grade Math</i>	2.0%	1.9%
<i>7th Grade Reading</i>	45%	46%	<i>7th Grade Reading</i>	6.1%	6.3%
<i>7th Grade Math</i>	27%	32%	<i>7th Grade Math</i>	2.3%	2.3%
<i>10th Grade Reading</i>	56%	64%			
<i>10th Grade Math</i>	36%	38%			

### SAFETY & SECURITY INDICATORS

<b>Child Abuse Accepted Referrals</b> <i>(per 1,000 children &lt; 17 years)</i>	1999 28	2000 26	<b>Juvenile Arrest Rates for Violent Crime</b> <i>(per 1,000 10 to 17-year olds)</i>	1997 3.3	1998 3.3
<b>Homicide Mortality</b> <i>(deaths per 100,000 15 to 19-year olds)</i>	1998 8.2	1999* 6.3	<b>Juveniles Held in Detention</b> <i>(per 1,000 10 to 17-year olds)</i>	1997 44.7	1998 50.8
<b>Carried a Weapon in the Past 30 Days</b> <i>8th Graders</i>	1998 13.9%	2000 11.0%	<b>Mortality from Unintentional Injuries</b> <i>(deaths per 100,000 0 to 14-year olds)</i>	1998 7.2	1999* 8.0
<i>10th Graders</i>	11.2%	10.1%	<i>(deaths per 100,000 15 to 19-year olds)</i>	31.1	30.5
<b>Attacked Someone in the Past Year with the Idea of Seriously Hurting Them</b> <i>8th Graders</i>	1998 17.2	2000 12.4	<b>Mortality due to Firearms</b> <i>(deaths per 100,000 15 to 19-year olds)</i>	1998 12.7	1999* 13.6
<i>10th Graders</i>	15.6	10.8	<b>Percentage of Mortality due to Firearms</b> <i>(percentage of deaths of 15 to 19-year olds)</i>	1998 20.4%	1999* 20.8%
<i>12th Graders</i>	13.0	9.1	<b>Mortality due to Motor Vehicle Accidents</b> <i>(deaths per 100,000 1 to 19-year olds)</i>	1998 7.6	1999* 7.4

\* 1999 data for these outcomes have been computed using the ICD-10, while the 1998 have been computed using the ICD-9. Therefore, results may not be directly comparable.

# THE EMOTIONAL & BEHAVIORAL WELL-BEING OF WASHINGTON'S CHILDREN:

## The Next Challenge

*"The burden of suffering experienced by children with mental health needs and their families has created a health crisis in this country. Growing numbers of children are suffering needlessly because their emotional, behavioral, and developmental needs are not being met by those very institutions which were explicitly created to take care of them."*

(Report of the Surgeon General's Conference on Children's Mental Health. [www.surgeongeneral.gov/cmh/childreport.htm](http://www.surgeongeneral.gov/cmh/childreport.htm), p3)

It has been estimated that between 10 and 20% of children are affected by emotional and behavioral problems severe enough to cause some level of impairment. The youngest children can suffer from profound disorders, such as autism, as well as from more subtle but significant problems, such as depression/anxiety disorders. In childhood, learning disabilities, conduct disorders, and other behavioral problems are widespread. By adolescence, the range and severity of mental health problems, including severe psychoses, chronic depression, antisocial behavioral disorders, anorexia, and substance abuse, are likely to increase.

These problems start early and can last for extended periods of time. Almost 50% of children with recognized behavior problems in kindergarten will be receiving special education services by the 4th grade. It has been estimated that at least three-quarters of adults with mental health problems had recognizable difficulties during childhood and adolescence.

Mental health problems can be life threatening (depres-

sion, anorexia) and life long. These problems affect families (conflict, violence, and homelessness), education (ability to learn), communities (crime and delinquency), and the economic well-being of society as a whole. Despite the high prevalence and profound impact of mental disorders, the ability of parents to get help for their children is restricted by the paucity of skilled providers, inadequate health insurance coverage, and the almost total lack of coordination and communication between medical providers, schools, and social service agencies.

It is clear that emotional and behavioral problems affect the full range of issues, concerns, and chapters of The State of Washington's Children: Family & Community, Economic, Health, Education, and Safety & Security. As illustrated in this and previous reports, mental health problems affect all areas of child health and well-being:

- Behavioral and emotional problems are 1.5 to 2 times more frequent in households with lower family incomes, which are headed by a single parent, where a parent is unemployed, or where the parents(s) did not graduate from high school.
- Learning, behavioral, and emotional disabilities are the major reasons why children are placed in Special Education programs and a significant draw on educational resources. Washington state surveys have estimated that one to two children per classroom have serious emotional or behavioral problems, even among preschoolers.
- A 1998 Washington state survey found that one-third of adolescents reported feelings of depression.

- Depressed teens were twice as likely to smoke, use marijuana, or binge drink, compared to those without significant depression.
- In 1999, mental illness was the reason for 1 in 5 hospitalizations among adolescents (ages 15-19). This accounted for more admissions than any other diagnostic category, and accounted for about one-third of hospital days.
- Mental and behavior problems account for a growing proportion of hospitalization admissions among children and youth. Among school-aged children, the mental illness hospitalization rate has risen from 1 in every 900 during 1990 to 1 in every 750 during 1999.
- In 1999, suicide was the cause of 24% of deaths among adolescents age 15-19 in Washington.
- Only 20% of adolescents who report attempting suicide seek medical attention or counseling.
- For every adolescent who commits suicide, over 200 more make a suicide attempt serious enough to cause injury.

A public health – or prevention-focused – perspective, as illustrated in the figure on page 8 may be helpful in understanding the causes, consequences, and opportunities for addressing emotional and behavioral problems in youth. This perspective illustrates that:

- There are multiple causes and risk factors for these problems including biologic/genetic, familial/environmental, and societal.
- The problems that affect the child are, themselves, highly variable and can involve emotional, behavioral, learning, and psychiatric disorders.

- These problems have immediate and long-lasting consequences for the child including: school failure, family conflict, substance abuse, social isolation, high-risk health behaviors, suicide, and delinquency.
- The impact of these problems is not restricted to the suffering of the individuals themselves. A child's mental health problems may have profound emotional and economic consequences for his family, peers, community, and society such as family conflict, violence, crime, homelessness, dependency on government programs, and loss of economic productivity.

The model also shows us that there are many places to intervene to reduce the burden of mental health disorders in children and youth. Each of these areas can, we believe, be viewed as an opportunity for prevention.

- **Primary prevention** – prevention efforts directed at root causes – must be aimed at alleviating the changeable factors that increase the likelihood of mental health problems before they occur such as unemployment, poverty, unintended births, dangerous living environments, and lack of social supports.
- **Secondary prevention** – prevention directed at breaking the link between cause and effect – must be increased to identify and assist high risk families that experience stresses, disorganization, and lack of skills so that emotional and behavioral problems do not develop in their children. Support programs that involve families, neighbors, schools, and communities need to be expanded and enhanced in an effort to prevent the occurrence or expression of psychological problems.
- **Tertiary prevention** – prevention efforts directed at reducing secondary consequences – involves not only treatment to alleviate mental health problems, but also efforts to prevent the consequences of the problems for the child. This must include programs that work not only

with the child and his/her parents, but also with schools, community resources, and social welfare agencies, to minimize the "secondary" effects of learning, emotional, and psychiatric impairments.

- Finally, quaternary prevention – prevention efforts directed at reducing the social consequences – will continue to be necessary to rehabilitate, house, detoxify, retrain, and incarcerate individuals whose mental health disorders pose threats to society. Unfortunately, we spend far too much of society's resources on these programs, which are often "too little, too late."

A public health, preventive perspective dictates that we move "upstream" and seek to reduce root causes and prevent the development of mental health problems in the first place. In addition, of course, we must continue to minimize the consequences of the mental, emotional, and behavioral problems that do occur. This is a daunting task.

Steven E. Hyman, M.D., Director, National Institute of Mental Health, has indicated: "There is a terrifying gap between what we know and how we act, between the services we could offer and those we do offer, and between what families can afford and what families can access."

Nevertheless, we must begin. To wait until we have all the knowledge and resources that we need would be to wait until generations of children have grown up, unduly burdened with mental health problems. Five ingredients are essential:

1. Identification of children at risk or in need – All adults who work with children must be aware of and sensitive to the need to accurately recognize emotional, behavioral, and psychiatric problems. Without early – and nonjudgmental – identification of mental health problems, interventions will be delayed and problems will be compounded.

*emotional & behavioral well-being*





2. Effective interventions – Whether we are talking about primary, secondary, tertiary, or quaternary prevention, it is important that we utilize evidence-based, age-appropriate tools. Where evidence is not available, research and careful evaluation, including cost effectiveness studies are needed. Dissemination of information about what does and does not work is a vital role for professional associations and public agencies.
3. Providers and resources – Even when children are properly screened and problems are identified, there are often intolerable delays in receiving care. It is well known that in this state there is a terrible shortage of trained mental health professionals and an even greater shortage of trained pediatric mental health professionals. Resources for early screening and prevention are even more meager. This is a penny-wise, pound-foolish state of affairs that hurts children, families, and communities.
4. Access to care – Even when providers and services are available, there are many who cannot avail them-

selves of these resources because of financial/insurance, geographic, privacy, or cultural concerns. Insurance companies do not generally have deep benefits for mental health treatment. Individuals are often afraid to seek care for reasons of privacy or fear of inappropriate or insensitive care. This is especially true for adolescents, gays, and minorities.

5. Coordination and communication among all sectors – Mental health problems often have multiple providers, agencies, and even whole bureaucracies associated with them: psychologists, behavioral pediatricians, social workers, the courts, addiction services, Medicaid, and schools, to mention just a few. It is essential, for reasons of both efficiency and effectiveness, that providers and agencies communicate better, coordinate activities, and work in concert to provide comprehensive services to families.

The Surgeon General has articulated eight goals for child mental health in the US (see box to right). We would be well advised to move together and with all due speed toward meeting these goals.

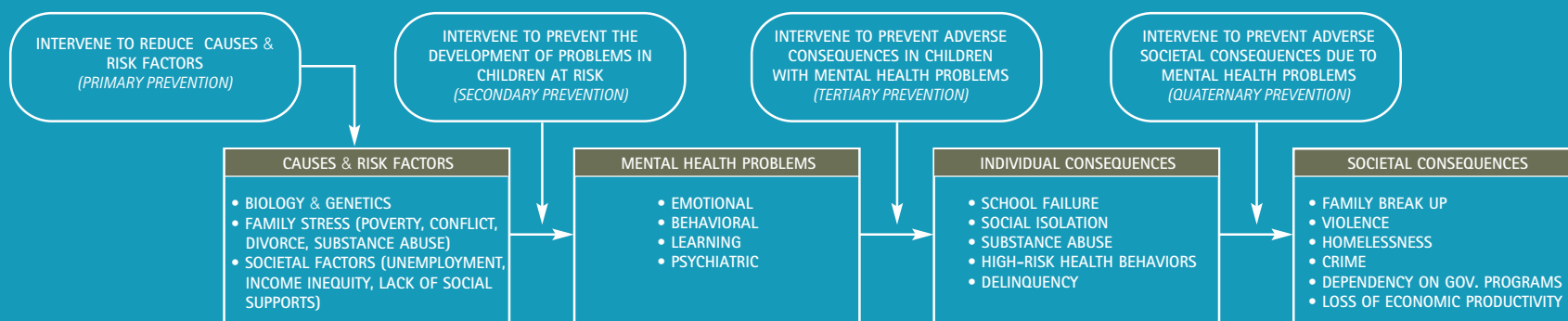
## SURGEON GENERAL'S GOALS FOR CHILDREN'S MENTAL HEALTH

1. Promote public awareness of children's mental health issues and reduce stigma associated with mental illness.
2. Continue to develop, disseminate, and implement scientifically-proven prevention and treatment services in the field of children's mental health.
3. Improve the assessment of and recognition of mental health needs in children.
4. Eliminate racial/ethnic and socioeconomic disparities in access to mental healthcare services.
5. Improve the infrastructure for children's mental health services, including support for scientifically-proven interventions across professions.
6. Increase access to and coordination of quality mental healthcare services.
7. Train frontline providers to recognize and manage mental health issues, and educate mental healthcare providers about scientifically-proven prevention and treatment services.
8. Monitor the access to and coordination of quality mental healthcare services.

*"It is difficult to imagine anything more important than the mental health of our children."*

-- Steven E. Hyman, MD, Director National Institute of Mental Health

### MENTAL HEALTH PROBLEMS IN CHILDREN: Causes, consequences, & opportunities for prevention



## FAMILY & COMMUNITY

Since the early 1990s when teen birth and pregnancy rates peaked, teenage childbearing has declined significantly and steadily.

- Pregnancy rates per 1,000 15-17 year-old girls have dropped from 57.1 in 1992 to 39.2 in 1999, a 31% decline.
- Birth rates per 1,000 15-17 year-old girls have declined from 32.7 in 1992 to 22.4 in 1999, a 31% decline.

During this time the proportion of births to unmarried women increased from 25 to 28 percent.

These numbers, however, tell only part of the story. Although we have witnessed a dramatic and encouraging decline in teen childbearing, in 1999 almost 80% of births to teens were unintended – either mistimed or unwanted at the time of conception. Similarly, 76% of births to women not living with a husband or partner at the time of conception were unintended.

Unintended births are often high-risk births. Women with unintended births are less likely to get prenatal care, and more likely to experience physical abuse and to abuse alcohol during pregnancy.

The risks to the child appear to extend past pregnancy. Children who are unintended are more likely to be low birthweight and less likely to be breastfed or to ride in an infant car seat, compared to intended infants.

KEY INDICATORS	THEN	NOW	TREND
TEEN BIRTH RATE (per 1,000 15 to 17-year olds)	24.2 (1998)	22.4 (1999)	Better
TEEN PREGNANCY RATE (per 1,000 15 to 17-year olds)	42.5 (1998)	39.2 (1999)	Better
BIRTHS TO UNMARRIED MOTHERS (percentage of all births)	28.0 (1998)	27.9 (1999)	No Change
DIVORCES INVOLVING CHILDREN	15,518 (1998)	14,714 (1999)	Better
CHILDREN LIVING IN OUT-OF-HOME CARE	16,361 (FY 1999)	19,103 (FY 2000)	Worse

*family & community*





## THE IMPACT OF UNINTENDED PREGNANCIES

In 1999, almost 4 out of 10 births in Washington were either mistimed or unwanted. Unintended pregnancies occur among women of all ages and of all races; in fact, 65% of unintended births in Washington occur in white women, aged 20 years and older.

In Fiscal Year 2000, almost 20,000 children were placed in foster and other kinds of out-of-home care. Efforts to assure that every birth is a wanted birth must be a top priority for health providers, schools, and public health. In a 1999 survey of mothers who had recently given birth, 38% reported that their pregnancy had been unintended – that they either hadn't wanted to become pregnant at all or felt that the pregnancy had been mistimed.

### WHY ARE UNINTENDED PREGNANCIES A PROBLEM FOR WASHINGTON STATE?

Unintended pregnancies are associated with numerous negative outcomes for both the mother and the infant.

During the pregnancy itself, these women are less likely to receive early prenatal care, and more likely than those with intended pregnancies to have stressful experiences during pregnancy (Chart 1), including:

- financial difficulties
- divorce
- domestic violence
- loss of employment
- imprisonment
- homelessness
- drug or alcohol use

In other studies, children resulting from unintended pregnancies have been shown to be more likely to:

- have a low birthweight
- be born prematurely
- not be breastfed or be breastfed for a shorter time

CHART 1

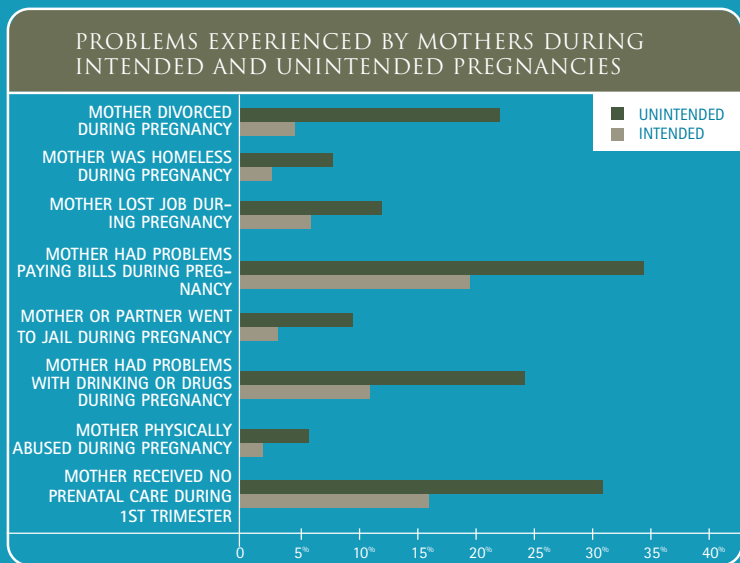


CHART 2

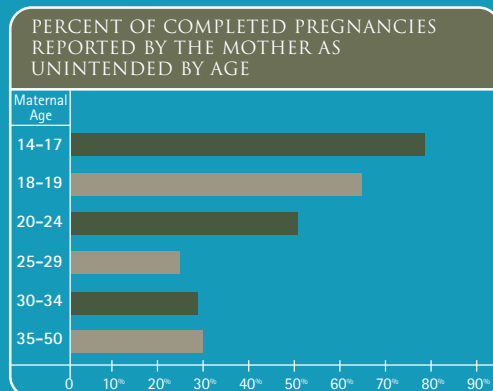
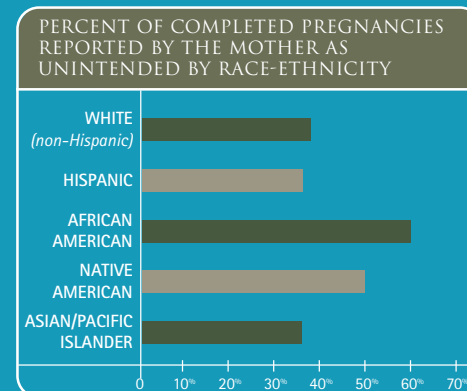


CHART 3



**WHICH GROUPS OF WOMEN ARE MORE LIKELY TO HAVE UNINTENDED PREGNANCIES?**

Mothers between the ages of 25 and 29 were the least likely to report that their pregnancy was unintended, with younger and adolescent mothers being the most likely. Over 75% of births were unintended among adolescent mothers age 14 to 17, compared to 25% among mothers age 25 to 29 (Chart 2).

African American and Native American mothers were also more likely to report that their pregnancy was unintended than were mothers of other racial or ethnic groups. About 60% of births to African American women and 50% of births to Native American women were considered unintended, compared to about 35% of births in other racial or ethnic groups (Chart 3).

However, unintended pregnancies are not just a problem for adolescent or minority women - 65% of unintended births in Washington State during 1999 occurred in white women aged 20 or older. This is because white women make up a larger proportion of Washington's population, and because pregnancy and childbirth are more common in women in their 20s and early 30s.

It is also important to realize that many cultural and social factors come into play when a new mother answers a question about the intendedness of her pregnancy. It's possible that women in some of these categories either perceive intendedness differently or are willing to be more candid on such a personal and emotion-laden question, and that these variations could account for some of the statistical differences observed between the groups.

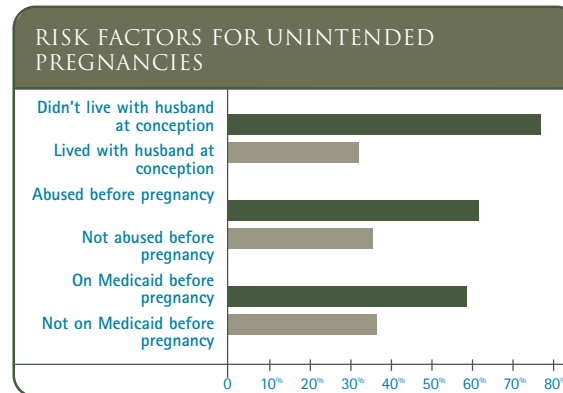
**ARE THERE OTHER RISK FACTORS FOR HAVING AN UNINTENDED PREGNANCY?**

Women who were not married and living with their husbands at the time of conception were more than twice as likely to report that their pregnancy had been unintended (Chart 4). However, given that the majority of births in the state occur to women who are married, it's not surprising that 71% of unintended births occurred in women who were married and living with their husband at conception.

Women who reported having been physically abused before their pregnancy were between 1.3 and 1.6 times more likely to report that their pregnancy had been unintended.

While white women who were on Medicaid prior to their pregnancy were more likely to consider their pregnancy to be unintended, African American women who had been on Medicaid prior to their pregnancy were less likely to consider their pregnancy unintended.

**CHART 4**



Percent of Completed Pregnancies Reported by Mother as Unintended





### WERE WOMEN WITH UNINTENDED PREGNANCIES USING BIRTH CONTROL WHEN THEY BECAME PREGNANT?

Among women who reported that their pregnancies had been unintended, 36% had been using some form of birth control at the time of conception (Chart 5). The most commonly reported reasons for not using birth control among women with unintended pregnancies were that the woman:

- thought she was infertile
- feared the side effects of birth control methods
- felt her husband or partner didn't want her to use birth control
- didn't expect to have sexual intercourse

### HAVE THE PATTERNS OF UNINTENDED PREGNANCIES CHANGED OVER RECENT YEARS?

The proportion of births due to unintended pregnancies remained relatively stable between 1994 and 1999, ranging from 37-39%. Unintendedness appears to have increased over these years among young women 18-19, from 47% to 65% (Chart 6). During this same time period, unintendedness has decreased in Hispanic and Asian/Pacific Islander women, from 42-44% to 36%.

### HOW CAN WASHINGTON STATE RESPOND?

Sexual behavior is inherently personal, but the consequences of these private acts -- sexually transmitted disease, pregnancy, and childbirth -- have profound and far-reaching consequences for society as a whole.

Reducing the numbers of unintended pregnancies will require changes in knowledge, attitudes, and services. To assure that decisions regarding pregnancy are made with the greatest autonomy, information, and thoughtfulness, we must increase openness and candor of discourse about human sexuality. Age-appropriate, frank, and forthright education will serve our communities far better than rigid, moralistic, and judgmental platitudes about sex. Education about birth control and the consequences of pregnancy, child bearing, and child rearing is vital for boys as well as girls. Boys and girls, men and women, need to understand their mutual responsibility for birth control, pregnancy, and, possibly, family creation. The pros and cons of all options, including abstinence and safe sex, should be thoughtfully and respectfully presented to our youth.

Furthermore, the availability of, and access to, family planning services must be protected and expanded. All health insurance must cover these services and privacy of clients must be protected. Provision of services must occur in all areas of the state, be available at times and places where young men and women can reasonably access services, and be sensitive to the age, ethnicity, and culture of clients.

CHART 5

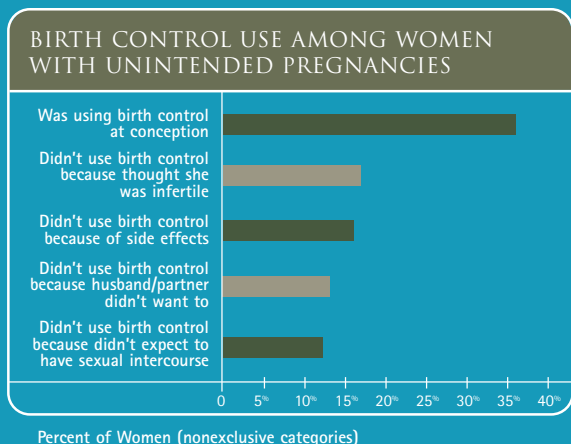
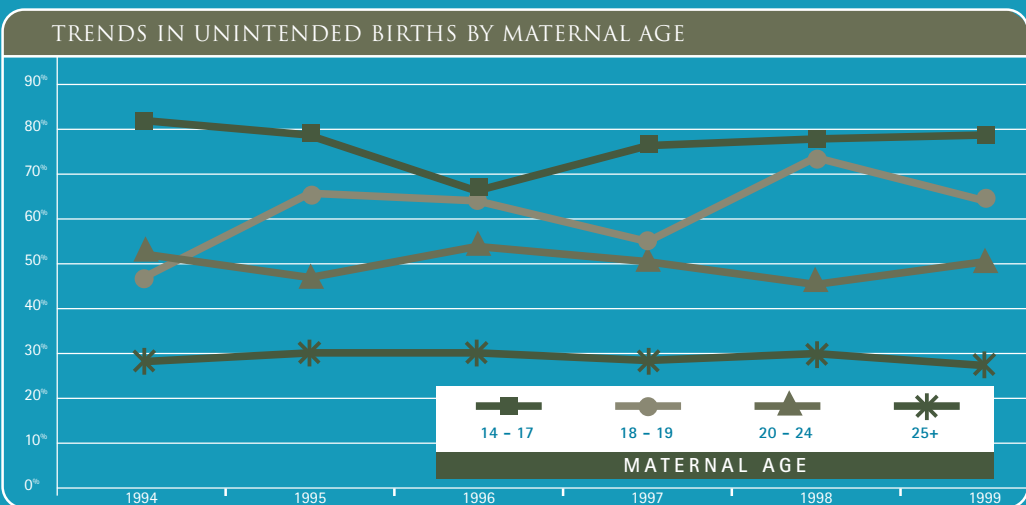


CHART 6



# ECONOMIC WELL-BEING

## PROTECTING VULNERABLE CHILDREN FROM ECONOMIC DISTRESS

When it comes to raising children, money counts in many ways. It influences the quality of child care, nutrition, health, housing, education, recreation, and social experiences. Economic deprivation, particularly in the youngest years, has been implicated in a broad range of negative outcomes. Emotional and behavioral problems, poor school performance, and increased rates of substance abuse, child abuse, and neglect have all been shown to be strongly related to economic distress in families.

Washington has been fortunate to experience a decade of economic expansion, with wage growth substantially exceeding the rate of inflation. Household income from all sources – wages, rents, and investment income – has also grown dramatically, though not uniformly for all families.

One economic indicator that has not improved is the burden of child care costs as a percent of average wages. The average cost of full-time care for one child is equivalent to almost one-fifth of the average take home pay for one worker. Most parents of young children are starting out in their jobs and careers and are at their lowest earning level. Since economic stresses on families have their greatest detrimental effects when children are young, reducing this burden would yield significant improvements in children's and families' well-being.

Tax revenues from economic expansion have allowed state and local governments to provide critical services, while reducing tax rates. Economic growth is now slowing and may turn downward. Government surpluses at both federal and state levels are disappearing, and available funds

are shrinking, even as more families are likely to experience economic distress. The 1990s boom helped many families, but left many others out in the cold. As the economy slows, it will be morally necessary to craft social service and economic strategies to protect the most vulnerable children.

## EXPLORING FAMILY INCOME DIFFERENCES

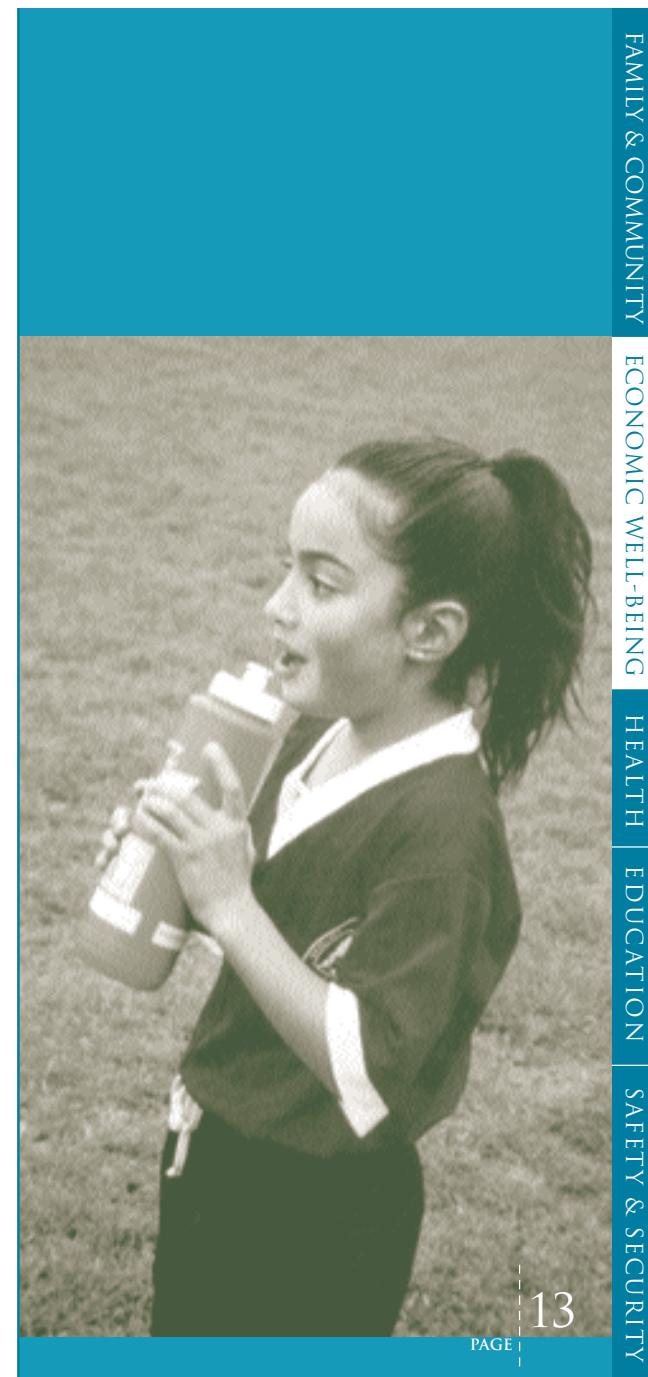
Income is not distributed randomly; some groups consistently more than others.

We have documented three types of large and growing inequalities of income that have accompanied the economic boom in Washington State:

- The wealthiest one-fifth of families receives half of the total income in the state, the lowest one-fifth receives only a twentieth, and middle-income families receive only one-eighth.
- Average incomes of African American, Native American and Hispanic families are only 60 percent that of whites.
- Wages and incomes have grown most rapidly in the Puget Sound area, but large parts of the state lag behind.

KEY INDICATORS	THEN	NOW	TREND
AVERAGE REAL WAGES (IN 1999 DOLLARS)	\$33,801 (1998)	\$35,742 (1999)	BETTER
PER CAPITA INCOME (IN 1999 DOLLARS)	\$29,445 (1998)	\$30,544 (1999)	BETTER
ANNUAL CHILDCARE COST (IN 1998 DOLLARS)	\$5,065 (1997)	\$5,397 (1998)	HIGHER
CHILDCARE COST AS PERCENT OF TAKE-HOME WAGES	19.2% (1997)	19.4% (1998)	HIGHER

*economic well-being*





It is important to understand what determines whether a particular family has more or less income. For example, if education is a major determinant, then improving educational opportunities for low-income families is likely to improve their income. If living in certain regions of the state is associated with lower income, then economic development efforts should be geared towards those areas. If racial-ethnic background is a determinant, then we must examine whether discrimination is playing a role.

To address these questions, we analyzed the recent State Population Survey (SPS) to explore in depth what factors are most closely related to differences in total family income. Multivariate analysis is a statistical technique that allows us to isolate the independent effect of a single factor while taking into account other factors that may also be related to each other and the outcome. For instance, we consider here the effect of family structure on income while simultaneously accounting for the possibility that people with fewer children

may tend to live in more affluent sections of the state. In this section we will show that when many different factors are considered, a few make the greatest difference in total family income:

- Education – Higher household income is associated with higher levels of education.
- Family Structure – More working adults in the household leads to higher income. The presence of a child under age five is associated with lower income.
- Entrepreneurship and Access to Capital – People who own their own businesses or farms or are self-employed, tend to have higher incomes.
- Area of Residence – Families living in or around King County have higher incomes than those in the rest of the state, even when differences in education level and other factors are controlled.

While there are major differences in incomes across race-ethnic groups, and recent immigrants to the U.S. have lower incomes, these differences become small when education, family structure, and county of residence are taken into account. While recognizing that the SPS does not measure all determinants of income, we still find that many family characteristics and demographics are significantly related to income level. These have implications for ways to improve the overall level and equality of income in our state.

### FAMILY CHARACTERISTICS

The single strongest factor in predicting family income level is the highest educational attainment of any person in the household (Chart 1). This held true even when controlling for the level of work effort, the region in which the family lives, and race-ethnic status. Thus, policies that improve access to post-secondary education will be critical for improving the overall level and equality of income across the state.

We found that income declines as the number of children increases from two to six. However, it is the most affluent families who are choosing to have seven to ten children.

The relationship between age and income is complex. Earnings and income increase through the adult years

CHART 1

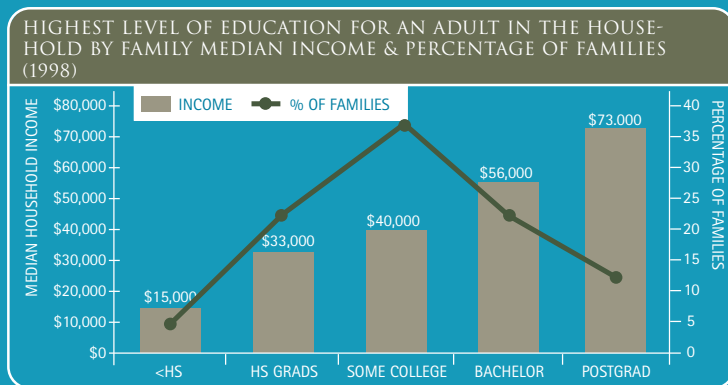
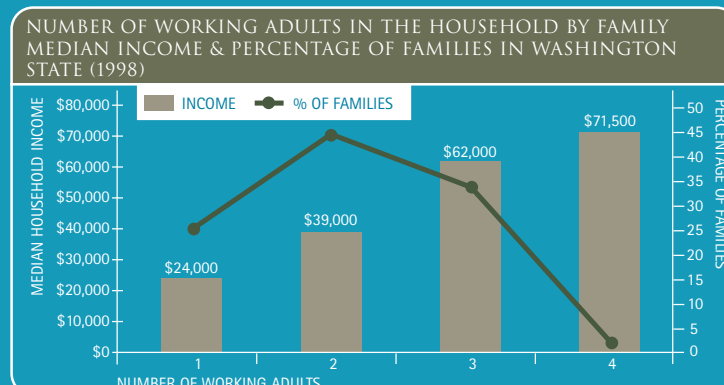


CHART 2



and peak in the 50s. In the 50s, earnings and work start to taper off. We considered this pattern in our multivariate analysis and found that age plays a significant but not major role in determining income level, when other factors are accounted for. Still, the youngest families tend to have the lowest incomes and having a child age 0-5 was also an important predictor of lower income. This reinforces the need for assistance to younger families with child care and health care costs.

#### ENTREPRENEURSHIP, EMPLOYMENT & LABOR MARKET DIFFERENCES

Not surprisingly, the one in four Washingtonians who are self-employed, or own their own businesses or farms, have higher incomes. This important relationship remains significant even when other factors are taken into account. Personal entrepreneurship and access to capital affects who owns their own business and the amount of income it produces. For most people, though, income is primarily what they earn in wages from their jobs.

The most important work-related factor for household income turned out to be how many adults in the household were working. Households with no working adults have the lowest income, households with only one working adult the next lowest income, and those with two, three or more working adults the highest incomes. Three or four working adults do not, however, automatically result in a household income three or four times that of one working adult (Chart 2).

Use of child care varies by income level. We see in Chart 3 that families with the highest incomes tend to use part-time child care, with one adult (usually the mother) able to stay home at least a portion of the week. The lowest income families have both the fewest hours of work and paid child care; middle income families have children in paid child care for the most hours per week.

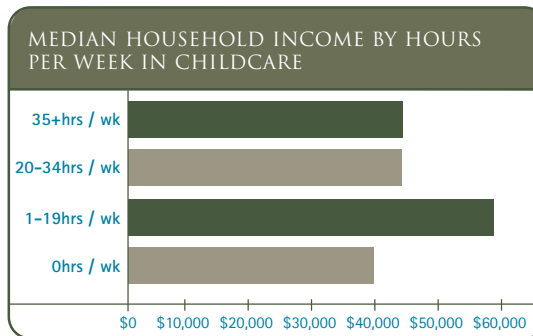
How much people earn, and whether full-time, full-year work is available to them, varies considerably by where people live. We found that even when all other factors were taken into account, people in the Puget Sound region had significantly higher incomes than those in the rest of the state (Chart 4).

#### RACIAL, ETHNIC & IMMIGRANT GROUPS

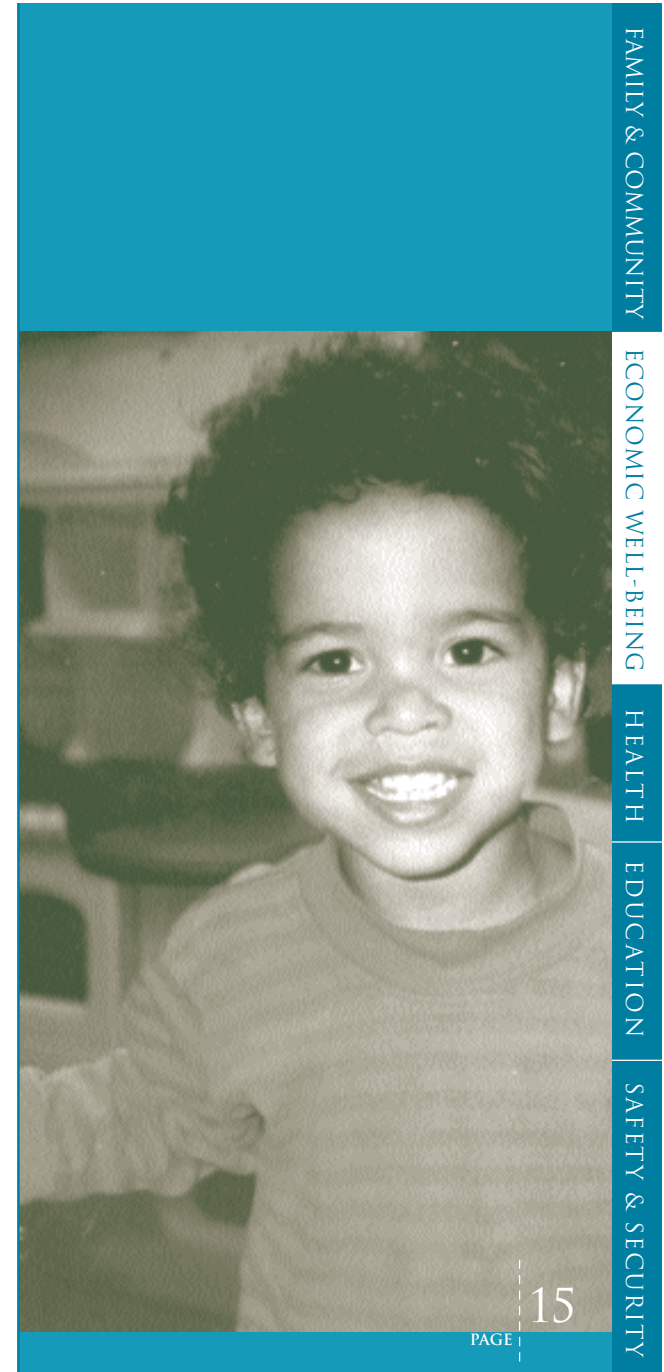
As illustrated by Chart 5, African American, Hispanic and Native American families have considerably lower average incomes than other families in Washington. However, the multivariate analysis reveals that much of this difference is explained by factors other than race-ethnic status.

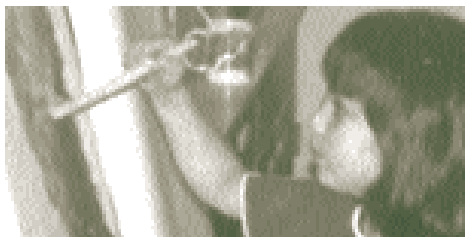
When we take into account educational attainment, recency of immigration to the US, and the age of children and parents, the income differences for Hispanics cease to be significant. Thus, as immigrant Hispanic families settle in, they tend to catch up with white income levels if they have access to the same educational opportunities as whites. However, Chart 6 suggests that overall it can take more than a decade for immigrants to begin to catch up with U.S.-born residents.

CHART 3



*economic well-being*





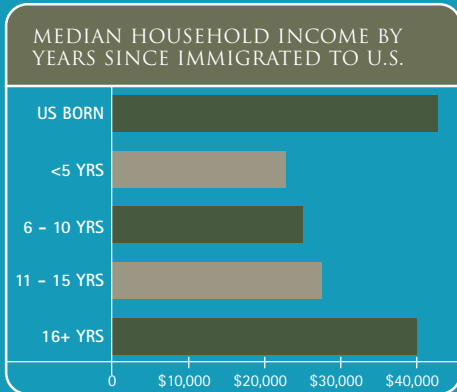
For Native Americans, income differences remain significant even after we control for education, age and number of young children. However, when we take into account the region of the state in which people live, the negative impact on earning power associated with being Native American is drastically reduced. That is, Native Americans are located disproportionately in the parts of the state with lagging economic growth and lower wages, reducing their opportunity for economic advancement.

The income differences are not as great for African Americans, but they are not reduced as much by controlling for education, family structure, and work status. This persistence of income disparities for African Americans should lead us to explore the possibility of discrimination or other factors as a cause.

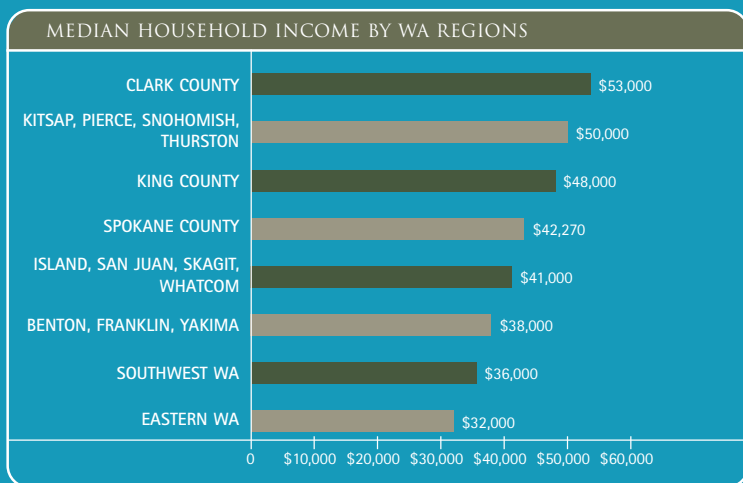
**CONCLUSION: PROTECTING CHILDREN FROM ECONOMIC DISTRESS**

This analysis suggests that improving education levels, improving child care subsidies so that more young children can be in high quality settings while their parents work, improving access to capital, encouraging entrepreneurial activity, and beefing up economic development activities for lagging regions of the state will be the most effective strategies for improving the economic well-being of children and families.

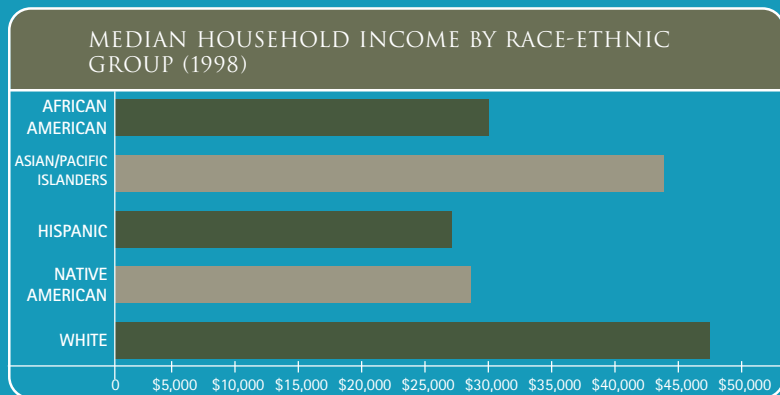
**CHART 6**



**CHART 4**



**CHART 5**



# HEALTH

By most measures, the health of Washington's children is good and improving. Our state has one of the lowest rates of low birthweight infants and one of the lowest infant mortality rates in the country. Deaths from nearly all medical causes have declined markedly over the past few decades, as have hospitalizations. Hemophilus Influenza type B meningitis, once a feared, often fatal event that affected over 300 young children as recently as 1986, is now almost unseen, as are deaths due to diarrhea and dehydration.

Nevertheless, there is much to be done. Emotional and behavioral disorders have become recognized as an increasingly important, and inadequately addressed, health issue for children. While hard numbers are difficult to come by, as many as 10-20% of children have clinically significant emotional and behavioral conditions, affecting

children from all incomes, ethnic backgrounds, and geographic areas.

Dental health is another area of grave concern and serious inadequacy. The recently released *Smile Survey* published by the Washington Department of Health found that:

- by third grade, almost 60% of children have some tooth decay.
- poor children and children of color are much more likely to have tooth decay than other children.
- although over 80% of children in Washington have some type of dental insurance, approximately 30% of survey participants had trouble getting dental care.

Dental problems can be prevented, leading to better health and decreased costs in the long run.

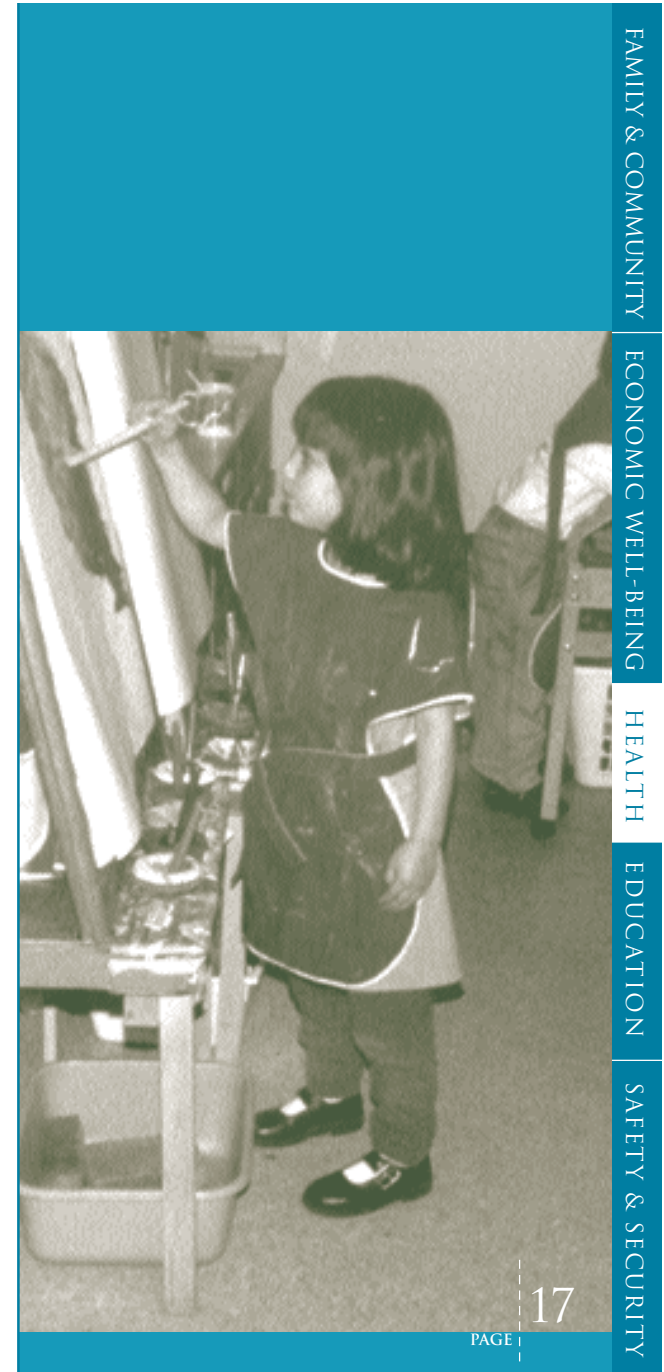
We should not neglect prevention in other areas, as well. Impressive reductions over the past decades in vaccine-preventable diseases, heart disease, and AIDS could begin to reverse. The trends are not encouraging. After a decade of steady improvement, the proportion of 2-year old children in our state who are fully immunized has declined. Obesity in children, a major risk factor for heart disease and diabetes, is rising rapidly and the proportion of children who exercise vigorously is declining.

Good health requires far more than good health care. It also requires good, healthy behaviors.

KEY INDICATORS	THEN	NOW	TREND
LOW BIRTHWEIGHT RATE (PERCENTAGE OF ALL BIRTHS)	5.7% (1998)	5.8% (1999)	NO CHANGE
PERCENTAGE OF 2-YEAR OLDS FULLY IMMUNIZED	85.7% (1998)	77.4% (1999)	WORSE
MORTALITY FROM MEDICAL CONDITIONS (DEATHS PER 100,000 1 TO 9-YEAR OLDS)	11.5	13.2	WORSE
(DEATHS PER 100,000 10 TO 19-YEAR OLDS)	11.0 (1998)	10.7 (1999)*	NO CHANGE
SUICIDE MORTALITY (DEATHS PER 100,000 15 TO 19-YEAR OLDS)	9.9 (1998)	14.8 (1999)*	WORSE
SMOKED CIGARETTES IN THE PAST 30 DAYS			
8TH GRADERS	15.2%	12.5%	NO CHANGE
10TH GRADERS	21.8%	19.8%	NO CHANGE
12TH GRADERS	28.6% (1998)	27.6% (2000)	NO CHANGE

\* 1999 data for these outcomes have been computed using the ICD-10, while the 1998 have been computed using the ICD-9. Therefore, results may not be directly comparable.

*health*





## HOSPITALIZATIONS

During 1999, 1 of every 9 infants and 1 of every 70 children ages 1-19 were hospitalized at some point. Children may be hospitalized because of a severe infection, injury, chronic illness, or congenital anomalies. For many of these children, hospitalization was the most critical point in their medical care that year. Regardless of the diagnosis, these children are admitted to the hospital because they require more complex and intensive care than would be available in an outpatient setting. Over the last ten years, there have been several changes in who gets hospitalized and why.

Between 1990 and 1999, hospitalizations rates of children from birth to age 19 in Washington declined by 26%, with a 43% decline in nonpregnancy-related hospitalizations among adolescents ages 15 to 19. One of the biggest factors in this decline has been a decrease in hospitalizations due to injuries among both children and adolescents. Among adolescent girls ages 15-19,

about 50% of hospitalizations are pregnancy-related. While pregnancy in adolescence is accompanied by many complex social and economic issues, it is generally not seen as an adverse medical event in the same way that infections or injuries are. Given this, the remainder of this discussion focuses solely on the nonpregnancy-related hospitalizations in each age group.

### MENTAL ILLNESS

While most people associate hospitalization with an infection, injury, or possibly cancer, mental illness has increasingly become one of the major reasons for hospitalization among Washington's children.

By 1999, mental illness:

- was the reason for 1 in 8 hospitalizations among school-aged children (ages 5-14).
- was the reason for 1 in 5 hospitalizations among adolescents (ages 15-19).

- accounted for more admissions than any other diagnostic category.
- accounted for about one-third of total hospital days.

The rate of mental illness hospitalization among adolescents has remained relatively constant over the last ten years, with about 1 in every 275 Washington adolescents hospitalized for a mental illness each year (Chart 1). Among school-age children, the mental illness hospitalization rate has risen from 1 in every 900 during 1990 to 1 in every 750 during 1999 (Chart 2).

Depression is the most common reason for a mental illness hospitalization in both school-aged children and adolescents, and accounts for over half of all mental illness hospitalizations in those under 20. In school-aged children, disruptive behavior disorders — such as oppositional defiant disorder, conduct disorder, and attention-deficit/hyperactivity disorder — are the next most common reasons for mental illness hospitalizations (Chart 3). In adolescents, on the other hand, bipolar disorder and schizophrenia are the next most common. Increases have been seen in admissions for bipolar disorder and oppositional defiant disorder across both age groups over the last decade (Chart 4).

School-aged children with mental illnesses tended to have longer stays in the hospital (average of 20 days) than did adolescents (average of 11 days). Approximately 19% of adolescents admitted with a mental illness were also treated for substance use.

CHART 1

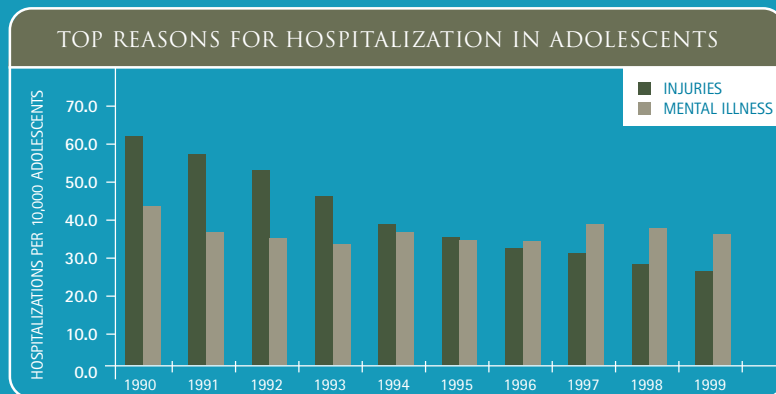


CHART 2

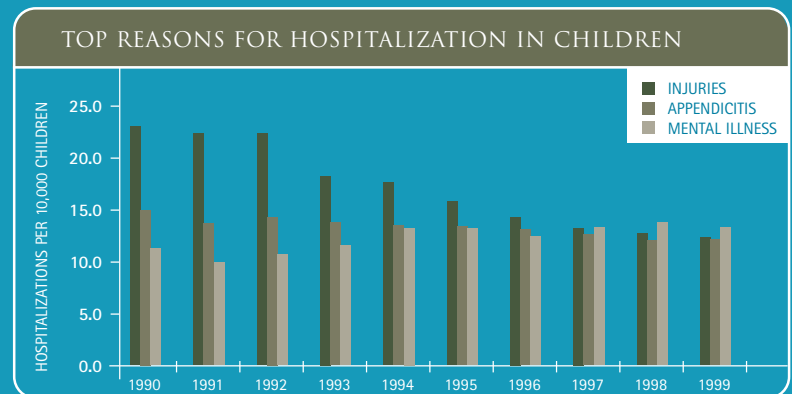


CHART 3

REASONS FOR MENTAL ILLNESS HOSPITALIZATIONS IN CHILDREN AGES 5 - 14

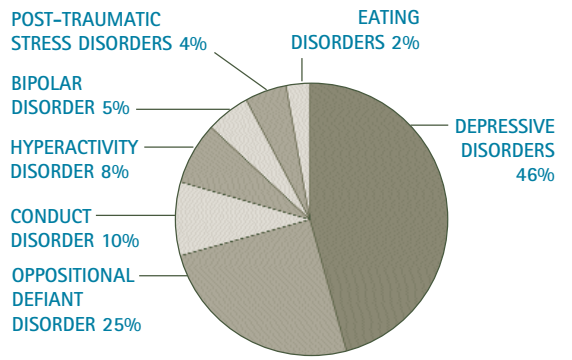
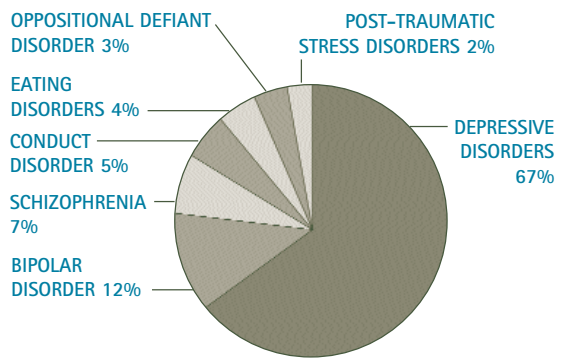


CHART 4

REASONS FOR MENTAL ILLNESS HOSPITALIZATIONS IN ADOLESCENTS AGES 15 - 19



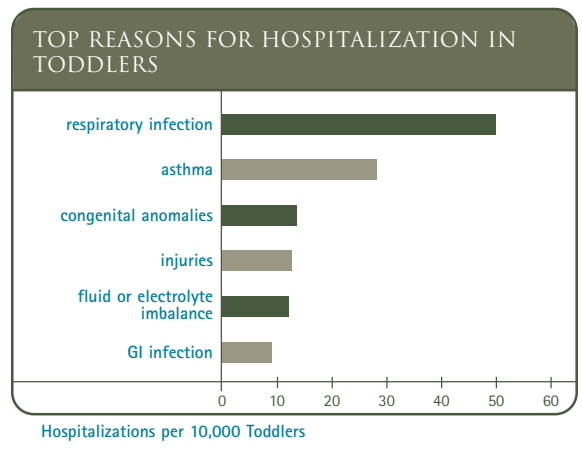
OTHER REASONS FOR HOSPITALIZATION

Among **adolescents**, the other leading causes of hospitalization are injuries, appendicitis, drug and alcohol-related problems, arthropathies, poisonings (largely self-induced Tylenol ingestions), and cancer. There have been significant decreases during the 1990s in the hospitalization rates for each of these categories, most notably for injuries (56% decrease), drug- and alcohol-related problems (77% decrease), and arthropathies (82% decrease).

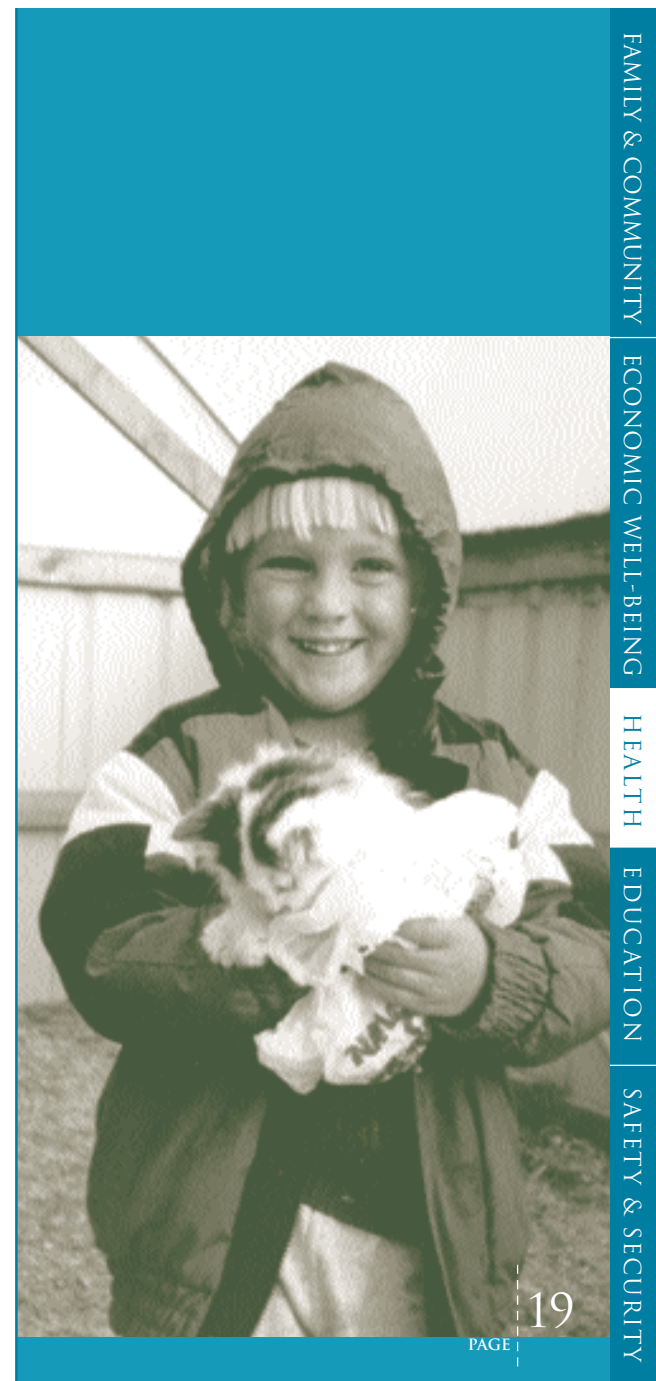
In **school-aged children**, the other leading causes of hospitalization are injuries, appendicitis, asthma, and respiratory infection. Washington hospitalization rates decreased during the 1990s by 47% for injuries and 21% for appendicitis.

In **toddlers** (ages 1-5), respiratory infections account for 1 in every 5 hospitalizations, followed by asthma, injuries, and congenital defects (Chart 5). There was a 32% decrease in hospitalizations due to injuries in toddlers during the 1990s.

CHART 5



*health*





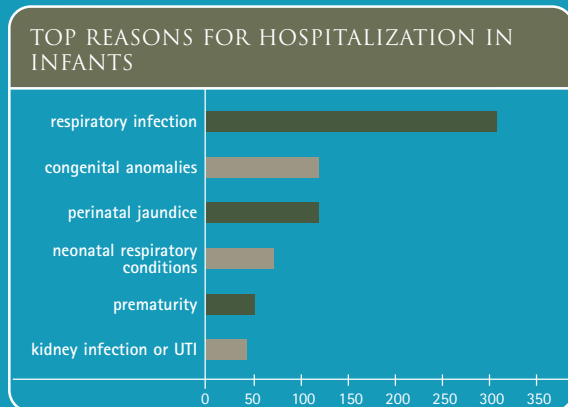
In **infants** (under 1 year), respiratory infections account for 1 in every 4 hospitalizations, followed by congenital anomalies, perinatal jaundice, neonatal respiratory problems, prematurity, and kidney or urinary tract infections (Chart 6). During the 1990s there was a 36% decrease in infant hospitalizations for perinatal jaundice, but there was a 149% increase in hospitalizations for kidney and urinary tract infections.

#### WHAT WE NEED TO DO

These changes in hospitalization patterns must not go unheeded by healthcare providers or insurance companies. The fact that mental illness is now the single largest reason for hospitalization in children over 4 years old indicates that:

- More than ever, there is a need for children's insurance coverage to place mental health care on par with other medical issues.
- Washington may need to assess its capacity for caring for children with mental health disorders, and determine whether additional outpatient facilities or inpatient beds are required.

CHART 6



# EDUCATION

Each year, students in Washington have shown improvements in their acquisition of basic skills. The strongest gains have been in reading, especially for 4th and 10th graders. Still, fewer than half of all students are meeting basic math standards and fewer than half of 7th graders are meeting basic reading standards on the Washington Assessment of Student Learning (WASL). Educating children in today's society is a complex and demanding task influenced by a variety of factors, including school readiness, mental health concerns, poverty, substance use, and spending on teachers and various educational programs.

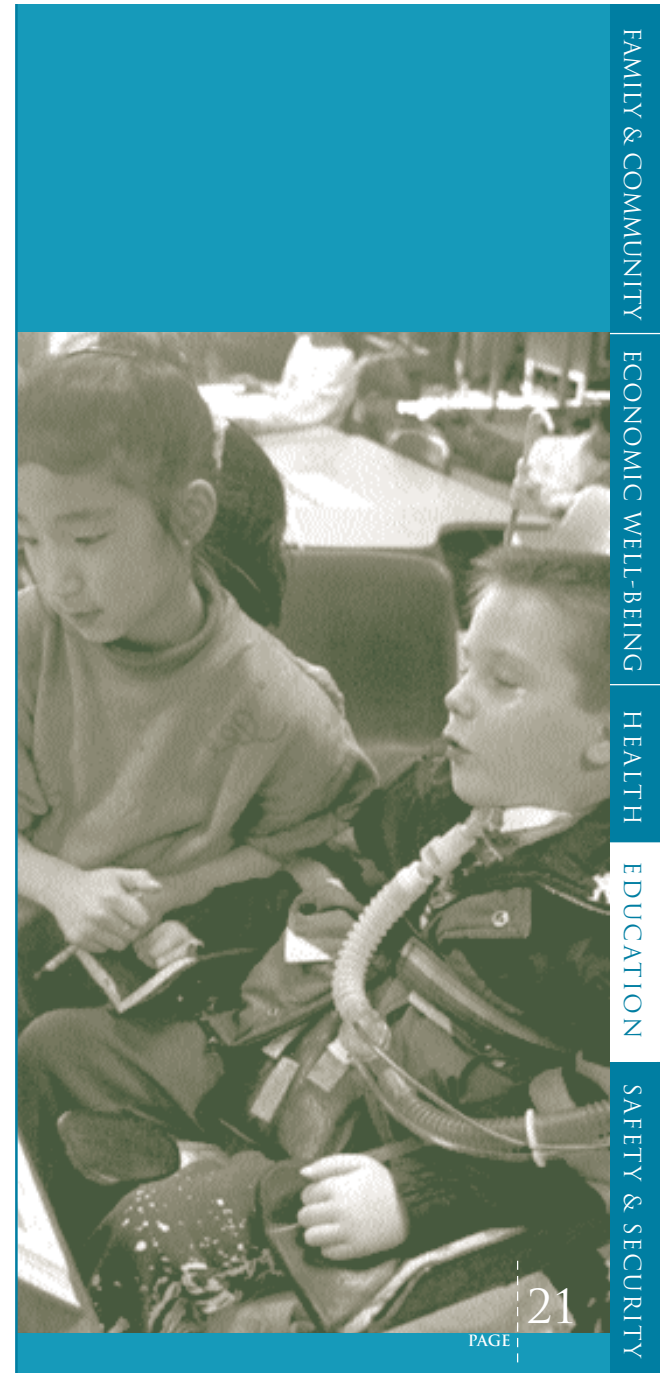
- Approximately 70% of birth to 5 year-old children in Washington are cared for out of their homes. National studies have shown that a large portion of child care settings are not of sufficient quality to help children develop the social, emotional, or cognitive skills needed for full school readiness.
- In Washington, 1 in 18 children ages 6 to 11 and 1 in 15 children ages 12 to 17 has a serious emotional or behavioral problem. That averages approximately 1-2 children in every classroom.
- Children living in poverty are more likely to have low test scores and are twice as likely to have serious emotional or behavioral problems. Teachers face the challenge of educating these multi-risk children while simultaneously responding to the emotional-behavioral and educational needs of all the children in the classroom.
- Substance (drug and alcohol) use by school peers has also been found to have a strong impact on individual achievement in school. Seventh graders whose peers avoided substance use scored substantially higher on

state math tests than those who had peers who were substance users.

The state, therefore, needs a two-pronged approach to bolstering student learning, which works to improve school leadership and classroom practice while also addressing these other issues impacting children's lives. If our children are to reach their full academic potential, time and resources must be invested towards developing high-quality early child care, emotional-behavioral screenings and treatment, and substance abuse prevention programs.

KEY INDICATORS	THEN	NOW	CHANGE
<b>PERCENTAGE OF 4TH GRADERS MEETING STANDARDS ON WASL</b>			
Math	41%	46%	Better
Reading	65%	72%	Better
	<b>(1999)</b>	<b>(2000)</b>	
<b>PERCENTAGE OF 7TH GRADERS MEETING STANDARDS ON WASL</b>			
Math	27%	32%	Better
Reading	45%	46%	Better
	<b>(1999)</b>	<b>(2000)</b>	
<b>PERCENTAGE OF 10TH GRADERS MEETING STANDARDS ON WASL</b>			
Math	36%	38%	Better
Reading	56%	64%	Better
	<b>(1999)</b>	<b>(2000)</b>	
<b>CHILDREN OF COLOR VS. WHITE - EXTENT OF THE GAP</b>			
<b>4th Grade</b>			
Math	3.30%	3.49%	Worse
Reading	1.96%	1.94%	No Change
<b>7th Grade</b>			
Math	6.13%	6.32%	Worse
Reading	2.25%	2.25%	No Change
	<b>(1999)</b>	<b>(2000)</b>	

*education*





## DISPARITIES IN EDUCATIONAL ACHIEVEMENT

Despite many challenges, students in Washington show consistent improvement. Over the past three years, the number of children meeting performance standards on the WASL has increased. Reading skills in particular show dramatic gains. Still, as the state as a whole moves ahead, certain ethnic-minority groups are falling further behind. Striking as these test score gaps are, they beg the question of whether there is something in particular about a child's race-ethnicity that affects achievement. We found race-ethnicity did not influence school or district average test scores once the percentage of children living in low-income families was accounted for. How much money a school district spends and where it spends that money did make a difference.

A look at average scores reveals that Hispanic, African American, and Native American students persistently lag behind white students in both math and reading.

These ethnic-minority students consistently fall behind in both average scores and in meeting basic standards (Charts 1-5). The following analysis documents these differences and explores a variety of factors that may contribute to them.

### IN 2000

- In 4th grade, three-quarters of Asians and whites met basic reading standards, but only half of African Americans, Native Americans, and Hispanics. In math, 2 of 5 Asians and whites met basic standards, but only 1 of 6 African Americans, Native Americans, and Hispanics (Chart 1).
- In 7th grade, half of Asians and whites met basic reading standards, but only one-quarter of African Americans, Native Americans, and Hispanics. In math, 2 of 5 Asians and whites met basic standards, but only

1 of 8 African Americans, Native Americans, and Hispanics (Chart 2).

### MEETING EDUCATIONAL NEEDS IN MATH AND READING

When differences in math and reading performance are compared, other parts of this picture emerge. The needs of Hispanic, Native American, and African American students are clearly being better addressed in reading than in math.

- In 4th grade, non-Asian minority students are, on average, almost twice as far behind white students in math as in reading. By 7th grade, the gap was more than two times larger for math scores than reading scores (Charts 4 & 5).
- Particularly alarming is the steadily increasing math gap seen for 7th grade African American students. In 2000, they showed the largest gap of all minority students, with test scores 11% lower than their white counterparts (Chart 4).
- The good news is that the math gap between 4th grade Native Americans and whites has steadily decreased from 1998 to 2000 (Chart 3).

CHART 1

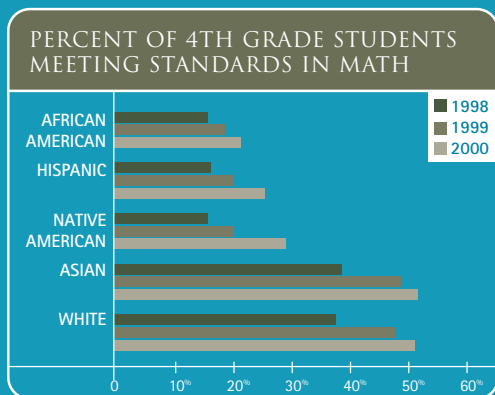
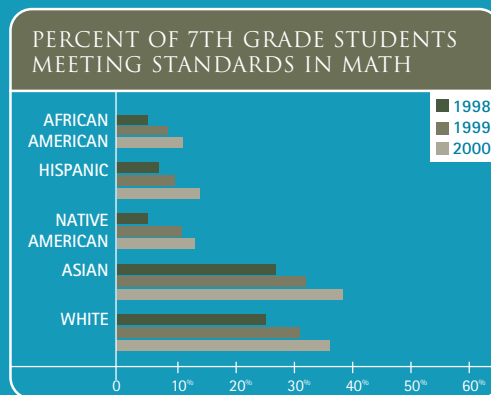


CHART 2



Technical and mathematical demands of the workplace are increasing. If we are to prepare all students to be competitive for high-paying jobs, this growing divide between math and reading achievement must be addressed.

#### MEETING THE NEEDS OF MIDDLE SCHOOL STUDENTS

The extent to which minority students fall behind is notably larger in middle school than elementary school.

- For both math and reading, a comparatively smaller percentage of minority students meet basic standards in 7th grade than in 4th grade (Charts 1 & 2).
- The gap in math scores is 1.5 times larger in 7th grade than in 4th grade (Charts 3 & 4).

These findings suggest that special attention needs to be paid to middle school students as they reach an age where they are increasingly likely to engage in substance use, exhibit violent or delinquent behavior, struggle with depression and other mental health needs, or drop out of school.

## EXPLORING THE GAP

Documenting the extent of the gap only begins to tell the story. Using multivariate analysis techniques, we explored the independent impact of various factors on average 7th grade test scores, while holding all other factors constant.

#### WHAT IMPACTS AN INDIVIDUAL'S TEST SCORES?

First we simultaneously examined two main factors which can influence an individual's test scores: their personal demographics (race-ethnicity and gender) and what school they attend.

- As other researchers have found, being male, African American, Hispanic, or Native American was associated with lower test scores. These factors all had approximately equal negative impacts on test scores.
- Surprisingly, which school a student attended had a bigger impact on test scores than race-ethnicity or gender. What school a person attended uniquely

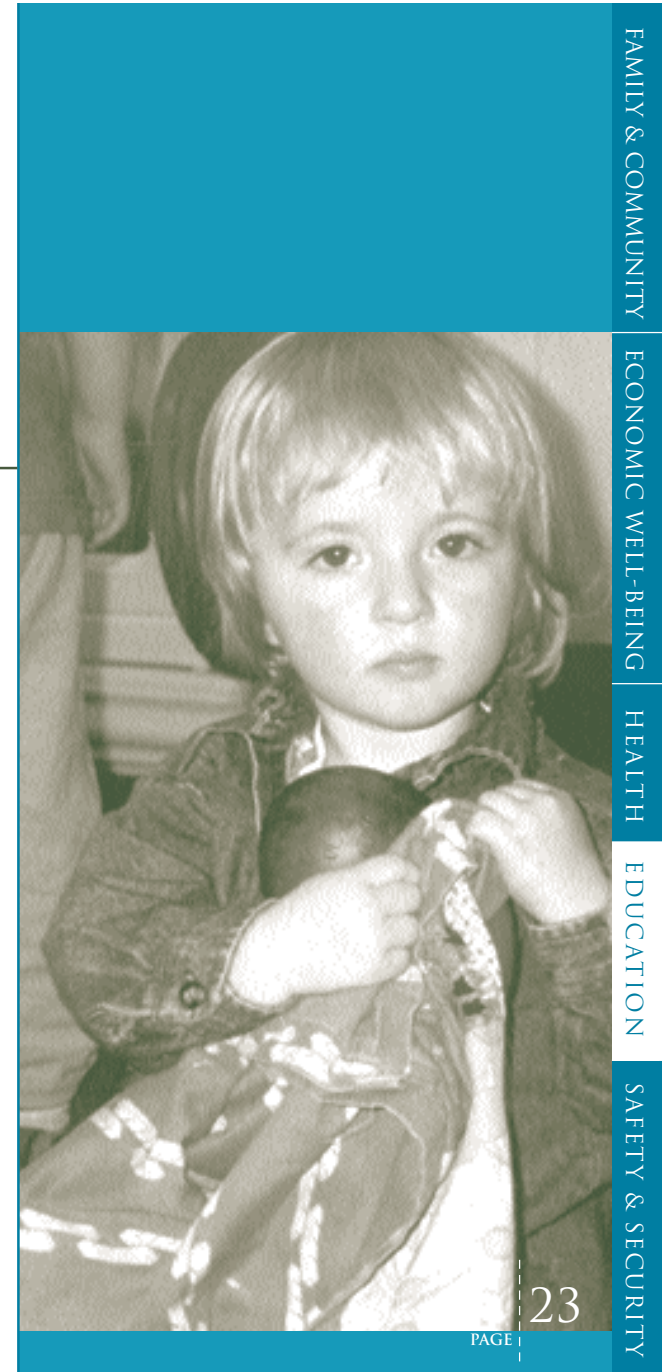
explained twice as much of the variability in individual test scores than race-ethnicity and gender, despite the known impact of these factors on individual test scores.

Since what school a person attends plays such an important role in individual performance, it is critical to consider factors in a school that might impact its overall test scores.

#### WHAT IMPACTS A SCHOOL'S AVERAGE TEST SCORES?

We considered a variety of factors that might influence a school's average test score: concentration of students from low-income families, school size, concentrations of student race-ethnic populations, average years of certified teaching experience, teacher race-ethnicity, teacher-to-student ratios, and the district to which the school belongs. There are numerous other factors that could also influence test scores, but we were limited to those for which we have consistent statewide data.

*education*





When we considered all of these factors together, only two components had a significant impact on school test scores: concentration of students from low-income families, and the district to which the school belongs.

- Higher concentrations of students from low-income families in a school predicted lower test scores.
- Concentrations of student race-ethnic populations did not influence school test scores after we accounted for the level of income in the school. This may indicate that economic disparities between race-ethnic groups are driving the gaps in test scores seen between these groups.
- What district a school is located in played an important role in predicting test scores. This may be due to the fact that many issues of both funding and classroom size are determined by districts rather than schools themselves. Despite the desire of many dis-

tricts to decentralize decision making, we found that there was little variability in resource distribution between schools within any one district.

Since what district a school is located in plays such an important role in school test performance, it is critical to consider factors in a district that might impact its overall test scores.

#### WHAT IMPACTS A DISTRICT'S AVERAGE TEST SCORES?

We evaluated a variety of factors that might influence a district's average test scores: district size, concentration of students from low-income families, concentrations of student race-ethnic populations, resources as measured by local education levy funds, total expenditures averaged over four years, and expenditure allocation, including money spent on basic education, components of non-basic education, and supervisory and guidance staff (Chart 6).

- Concentration of students from low-income families emerged as the single largest predictor of test scores. Higher concentrations in a district predicted lower test scores. This highlights the need to focus on the specific educational needs of children living in low-income families.

- The concentration of race-ethnic populations in a district did not influence district average test scores after taking into account the percentage of children living in low-income families. Again, it appears that economic disparities may play a critical role in the gap seen in test scores between whites and race-ethnic minorities.

- Having higher local education levy revenue in a district predicted higher test scores. Also, the overall amount of money a district spends plays a critical role in district test scores. Overall, higher average test scores are found in districts with consistently higher levels of spending.

- What decisions districts make regarding where to focus funding are key. Higher test scores are seen in districts that specifically spend more money on basic education. Basic education consists of money spent on direct classroom instruction, including teacher pay.

CHART 3

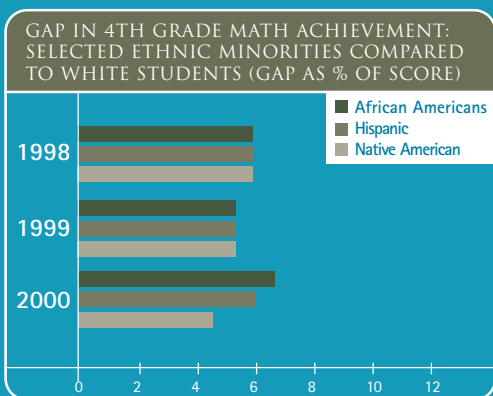


CHART 4

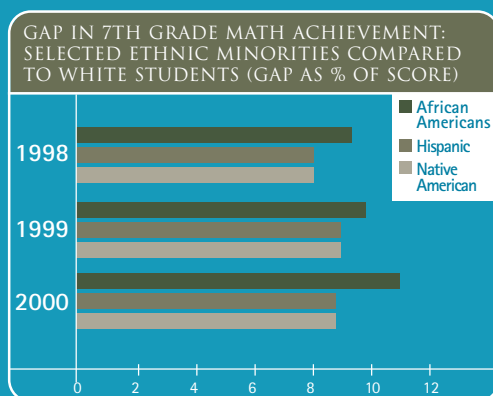


CHART 5

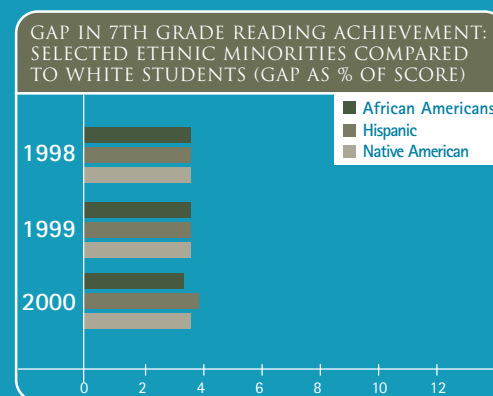
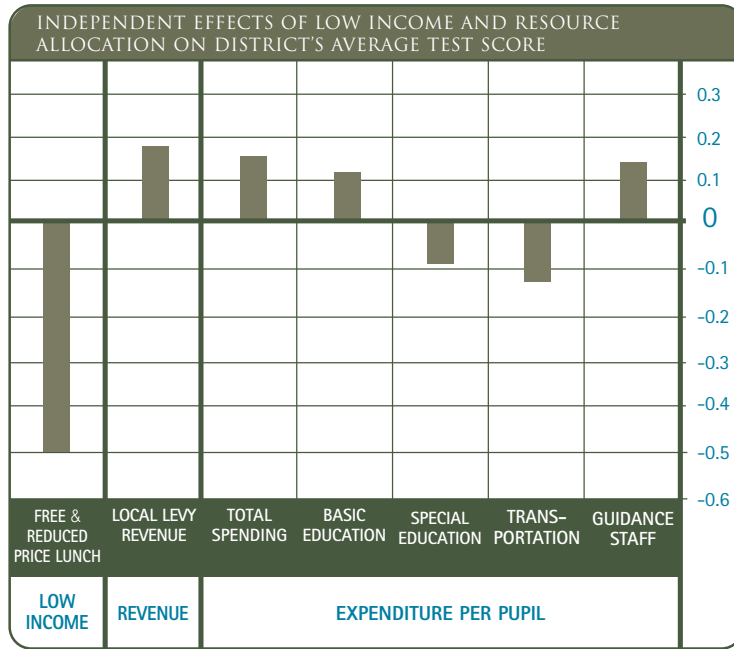


CHART 6



Higher scores are also associated with spending more money on guidance staff including counselors, nurses, and psychologists.

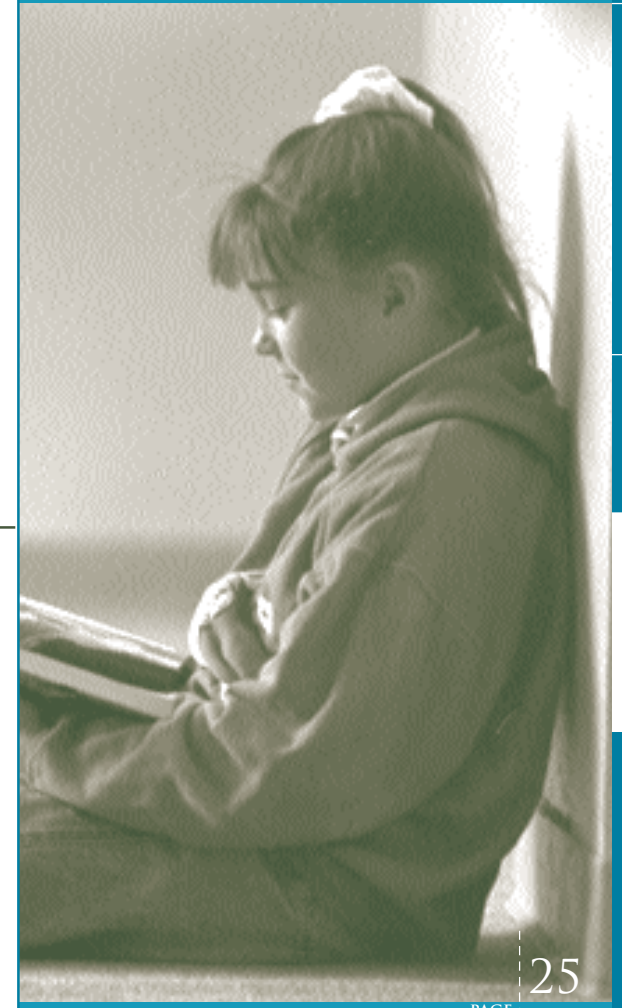
Emphasizing the importance of increased spending on basic education, we found that increased spending on some areas of non-basic education (special education and transportation) was associated with lower test scores. This is notable as, on average, special education accounted for 16% of non-basic expenditures and transportation 7%. In contrast, support services accounted for 47% of non-basic expenditures but had no impact on district average test scores. The state needs to explore further the reasons behind these funding differences and their relationship to achievement. Whatever the reasoning behind the decision-making process, shifting funds away from basic education to these particular components of non-basic education is associated with lower achievement.

## THE BIG PICTURE

Race-ethnicity did not influence school or district average test scores, once the concentration of children living in low-income families was taken into account. There remains a large gap in individual achievement between white and select race-ethnic minority groups, however, this gap may be due to race-ethnic income disparities

rather than specific characteristic of race-ethnic minority groups. While school districts do not have the power to change the percentage of low-income families in their district, they do have the power to positively influence this gap through careful and specific application of funds.

*education*





## SAFETY & SECURITY

Injuries, both intentional and unintentional, are the leading cause of death in children. Each year, almost 250 teenagers 15-19 years of age die in Washington. Of these, approximately:

- 50 will die from diseases and medical conditions.
- 40 will die from suicide.
- 30 will die from homicide.
- 130 will die from an unintentional injury,

Of these 250,

- 50 will die from a firearm-related injury.
- 100 will die from a motor-vehicle-related injury.

Over the past decade, there has been a 20% decline in rate of deaths due to motor vehicle accidents and a 44% decline in motor vehicle-related hospitalizations among 15-19 year olds. New regulations aimed at limiting passengers and night/early morning driving for new teen drivers may further reduce these events.

Motor vehicles, however, are not the only serious threat to the health and lives of children. Bicycles, poisons,

falls, drowning, and knives are also significant hazards. Through improved practices related to bicycle helmets, pool safety, and poison control, we have achieved an approximately 50% reduction in hospitalizations for these kinds of injuries over the past decade.

Unfortunately, firearms continue to be a major threat, accounting for 1 in 5 deaths of teens 15-19 years of age. Most of these deaths are suicides.

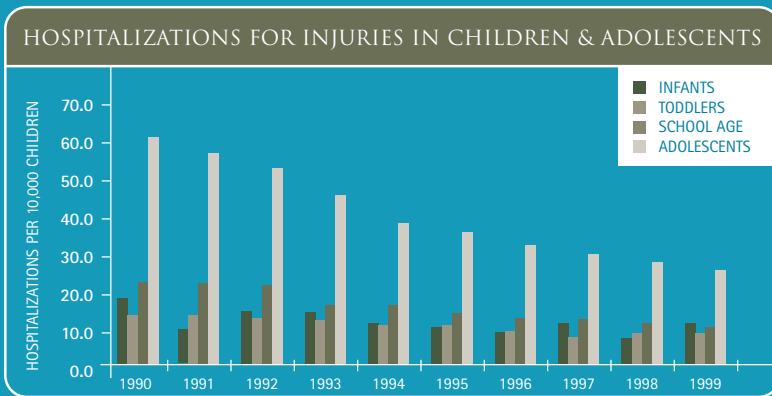
Reductions in injury morbidity and mortality have been, and will continue to be, achieved through educational programs, improvements in product safety, and laws and regulations.

The challenge of reducing child abuse and neglect is far greater. In 2000, there were 26 accepted Child Protective Services referrals per 1,000 children in Washington. This rate has been stable for many years. It should be zero. We have a long, long way to go towards assuring that all children in this state grow up secure, nurtured, and safe.

KEY INDICATORS	THEN	NOW	TREND
CHILD ABUSE ACCEPTED REFERRALS (PER 1,000 CHILDREN < 17 YEARS)	28 (1999)	26 (2000)	BETTER
DEATHS FROM UNINTENTIONAL INJURIES (DEATHS PER 100,000 0 TO 14-YEAR OLDS)	7.2	8.0	WORSE
(DEATHS PER 100,000 15 TO 19-YEAR OLDS)	31.1 (1998)	30.5 (1999)*	NO CHANGE
DEATHS DUE TO HOMICIDE (DEATHS PER 100,000 15 TO 19-YEAR OLDS)	8.2 (1998)	6.3 (1999)*	BETTER
MORTALITY DUE TO FIREARMS (DEATHS PER 100,000 15 TO 19-YEAR OLDS)	12.7 (1998)	13.6 (1999)*	NO CHANGE
PERCENTAGE OF MORTALITY DUE TO FIREARMS (PERCENTAGE OF DEATHS OF 15 TO 19-YEAR OLDS)	20.4% (1998)	20.8% (1999)*	NO CHANGE
MORTALITY DUE TO MOTOR VEHICLE ACCIDENTS (DEATHS PER 100,000 1 TO 19-YEAR OLDS)	7.6 (1998)	7.4 (1999)*	NO CHANGE
JUVENILE ARREST RATES FOR VIOLENT CRIME (PER 1,000 10 TO 17-YEAR OLDS)	3.3 (1997)	3.3 (1998)	NO CHANGE
JUVENILES HELD IN DETENTION (PER 1,000 10 TO 17-YEAR OLDS)	44.7 (1997)	50.8 (1998)	WORSE

\* 1999 data for these outcomes have been computed using the ICD-10, while the 1998 have been computed using the ICD-9. Therefore, results may not be directly comparable.

CHART 1



# INJURIES

Injuries have long been recognized as one of the leading causes of morbidity and mortality among children and adolescents. Even more importantly, most childhood injuries are preventable, meaning that interventions such as seat belt and bicycle helmet campaigns can have a significant impact on reducing the incidence. The last decade has seen numerous public safety campaigns aimed at reducing child and adolescent injuries in Washington state. It's probably not a coincidence that hospitalization rates for injuries have decreased 49% over the last decade, with a 56% decrease among adolescents (Chart 1). However, adolescents are still more than twice as likely to be hospitalized for injuries as any other age group.

## MOTOR VEHICLE ACCIDENTS

In 1999, motor vehicle accidents (MVAs) were responsible for 7.4% of deaths among Washington's children and adolescents (ages 1-19). MVAs also comprise a large proportion of injury-related hospitalizations in children and adolescents (Charts 2-5), accounting for:

- 36% among adolescents
- 25% among school-aged children
- 18% among toddlers
- 8% among infants

CHART 2

HOSPITALIZATIONS DUE TO INJURY IN ADOLESCENTS, 1990 - 1999

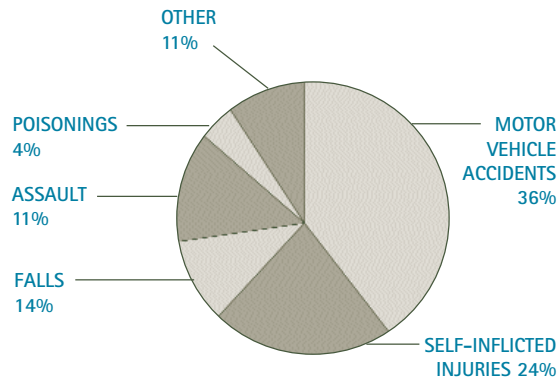
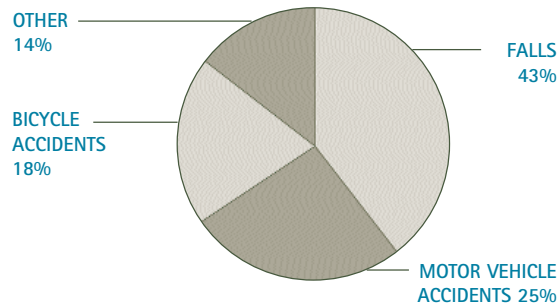
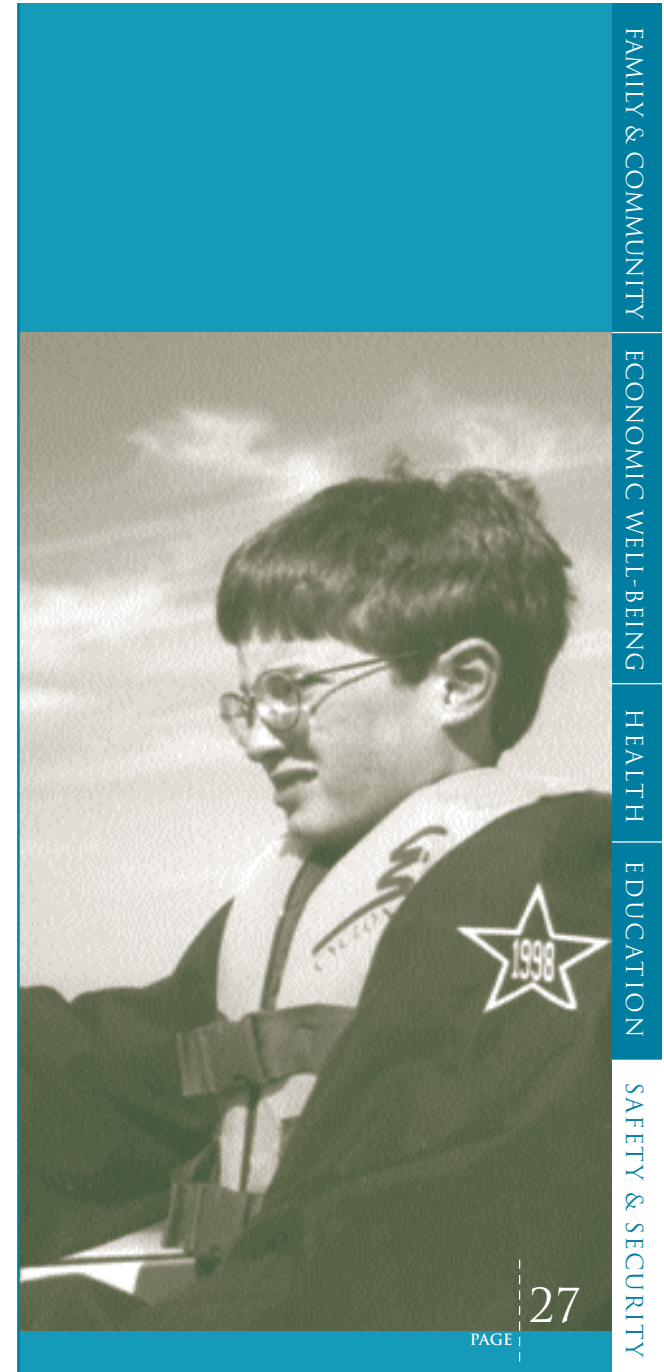


CHART 3

HOSPITALIZATIONS DUE TO INJURY IN SCHOOL-AGED CHILDREN, 1990 - 1999



*safety & security*





There has been a 44% decrease over the last ten years in hospitalizations from MVAs. Victims of MVAs are often categorized depending on whether they were in a car, riding on a motorcycle, or a pedestrian at the time of the accident. Hospitalizations among children and adolescents stemming from all of these categories have decreased over the last decade (Chart 6).

While most children and adolescents hospitalized following an MVA were in a car at the time, over 40% of toddlers and school-aged children had been pedestrians. Adolescents are seven times more likely to be hospitalized for a car accident than younger children, and are six times more likely to be hospitalized for a motorcycle accident (Chart 7).

#### BICYCLE ACCIDENTS

Hospitalizations due to bicycle accidents have decreased by 35% among school-aged children and by 60% among toddlers. School-aged children are still more likely to be hospitalized due to a bicycle accident than any other age group. Approximately one-third of

CHART 4

HOSPITALIZATIONS DUE TO INJURY IN TODDLERS, 1990 - 1999

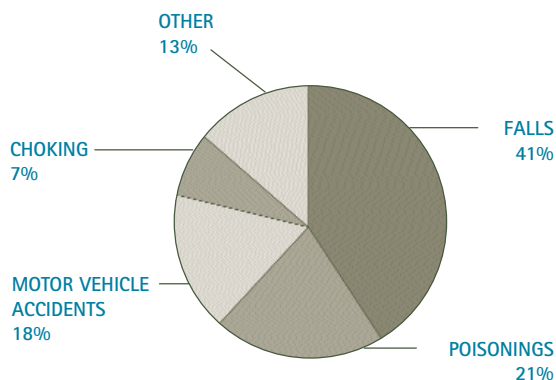


CHART 5

HOSPITALIZATIONS DUE TO INJURY IN INFANTS, 1990 - 1999

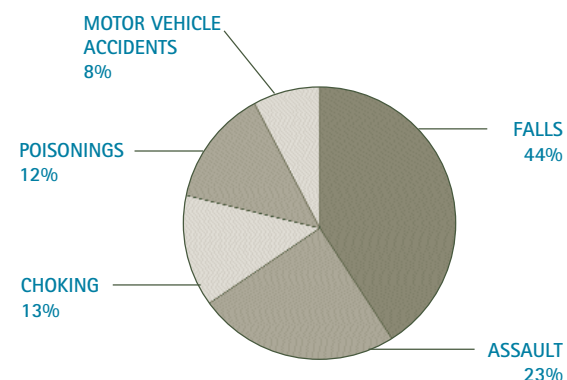


CHART 6

MOTOR VEHICLE ACCIDENTS IN CHILDREN & ADOLESCENTS

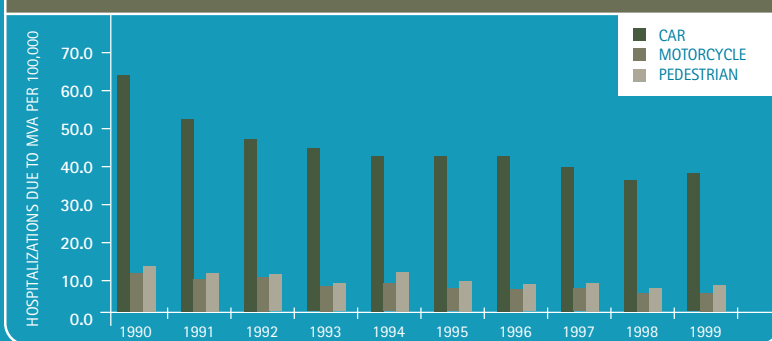
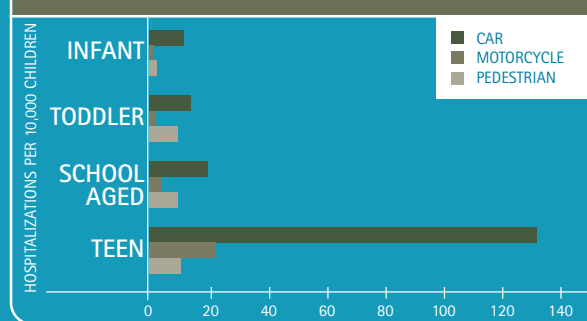


CHART 7

MOTOR VEHICLE ACCIDENTS IN CHILDREN & ADOLESCENTS



bicycle accidents that result in hospitalization in children and adolescents involve a motor vehicle. The decline over the last ten years in bicycle-motor vehicle accidents resulting in hospitalization (46%) is considerably steeper than the decline in bicycle-only accidents (28%).

#### OTHER TYPES OF INJURIES

- There has been a 60% decrease in hospitalization due to poisonings among toddlers, with no significant decreases in the other age groups. Infants are now equally as likely as toddlers to be hospitalized for poisoning accidents.
- There has been a 44% decrease in hospitalizations due to falls over the last ten years, with a 56% decrease in adolescents. School-aged children are still more likely to be hospitalized for falls than for any other type of injury.
- There has been a 68% decrease in hospitalizations due to choking in toddlers, with no significant changes in other age groups.
- Hospitalizations due to assault have decreased by 43%, with a 51% decrease among adolescents. Infants are now more likely to be hospitalized due to assault than older children or adolescents.
- Hospitalizations due to cutting and piercing injuries have decreased by 72% in school-aged children and adolescents, but have not changed significantly in toddlers.

- Hospitalizations due to firearm injuries have decreased by 72% in school-aged children and adolescents. However, adolescents are 4.6 times more likely to be hospitalized for firearm injuries than younger children.

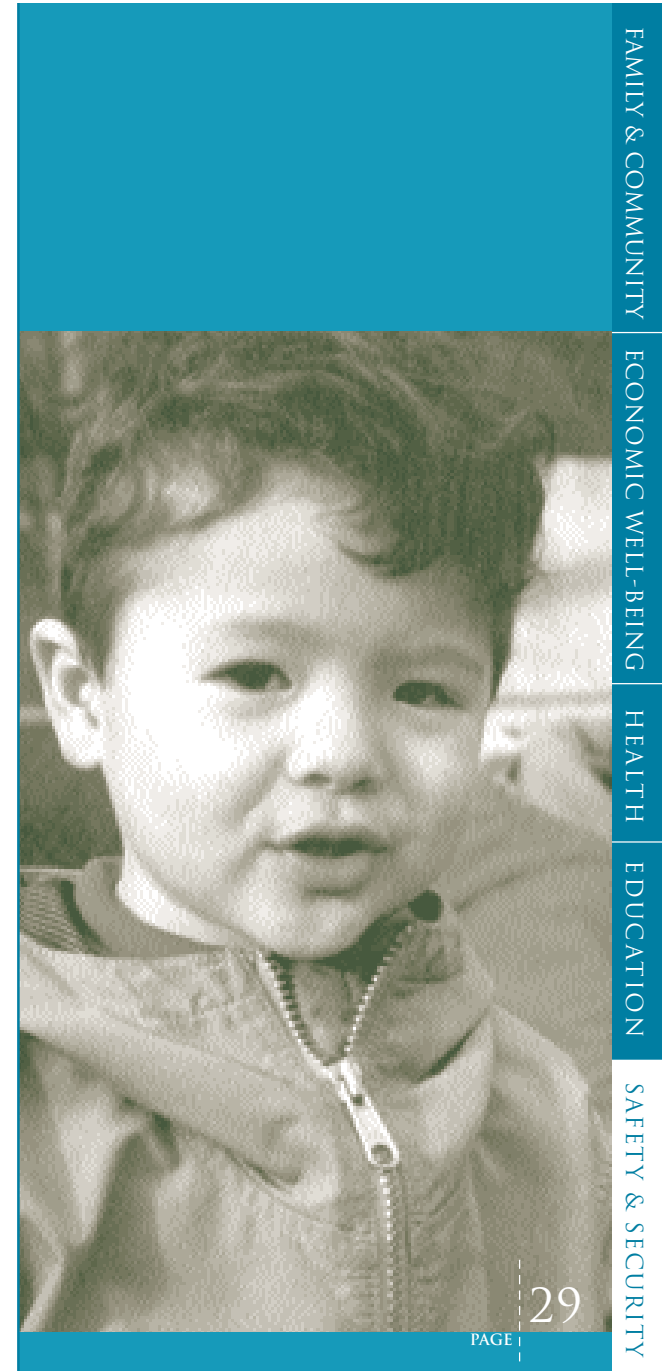
#### WHY HAVE HOSPITALIZATION RATES FOR INJURIES DECLINED SO MUCH?

While reduction in hospitalization rates due to injury may mean that child and adolescent safety is improving, there are other factors that may have contributed to these changes.

Many injuries that were once routinely treated on an inpatient basis are now sometimes treated on an outpatient basis. Since the Comprehensive Hospital Abstract Reporting System database collects its data from hospital discharge records, injuries treated at a doctor's office are not included. While an investigation of hospitalization rates does not capture all injuries, it does examine the injuries that required the most intense medical care. It is likely that trends in hospitalization rates for injuries mirror trends in the rates of injuries themselves, although there are other factors involved.

Decreases in many types of injuries may be related to changes over the decade in how children spend their leisure time. If children in 1999 spend less time riding bicycles than children in 1990, we would expect to see a reduction in injury rates, even if no actual changes in safety practices occurred. The same may be true for other childhood activities, such as climbing trees, playing at playgrounds, or participating in team sports, all of which are related to fall injuries.

*safety & security*





## WASHINGTON'S CHILDREN SOURCES/ENDNOTES

### FAMILY AND COMMUNITY

#### Key Indicators and Charts

Data was obtained from:

1994-1999 Pregnancy Risk Assessment Monitoring System (PRAMS), an ongoing survey by the Washington State Department of Health and the Centers for Disease Control and Prevention (CDC)

1990-1999 Vital Statistics provided by the Washington State Department of Health, Center for Health Statistics

Washington State Department of Social and Health Services (DSHS), Children's Administration

### ECONOMIC WELL-BEING

#### Key Indicators and Charts

Data was obtained from:

1998 State Population Survey by the Washington State Office of Financial Management

Average Real Wages: U.S. Department of Labor, Bureau of Labor Statistics

Per Capita Income: Washington State Office of Financial Management

Childcare Costs: Washington State Department of Social and Health Services

#### Notes

The State Population Survey (SPS), conducted by the Washington State Office of Financial Management, is a

random digit telephone survey of over 14,000 households, patterned on the Survey of Income and Program Participation conducted nationally by the US Census Bureau. We removed cases that had extremely high levels of income and cases with missing data for variables of interest. The SPS measures household income and does not differentiate family status. We occasionally refer to "family income" in this report for ease of communication.

### HEALTH

#### Key Indicators and Charts

Data was obtained from:

Washington State Survey of Adolescent Health Behaviors 2000 conducted by the DSHS, Division of Alcohol and Substance Abuse and the Office of Superintendent of Public Instruction

1990-1999 Vital Statistics provided by the Washington State Department of Health, Center for Health Statistics

1990-1999 Comprehensive Hospital Abstract Reporting System (CHARS) Inpatient Discharge Database Reports produced by the Washington State Department of Health and the Washington State Community Hospitals

1998 Washington State Population Survey and Intercensal Population Estimates provided by the Washington State Office of Financial Management

Washington State Department of Health, Immunization Branch

### EDUCATION

#### Key Indicators and Charts

Data obtained from:

Washington State Office of the Superintendent of Public Instruction

"Developing Training and Support for Family, Friends and Neighbors Caregivers in Washington State" A Human Services Policy Center report to OCCP and CCCC/Systems Committee on Interim Findings. July 2001.

"Smile Survey 2000." A report by the Washington State Department of Health. Please also see the "Watch Your Mouth Campaign" at [www.kidsoralhealth.org](http://www.kidsoralhealth.org).

"Emotional and Behavioral Problems Among Washington's Children." A report by Washington Kids Count. [www.hspc.org](http://www.hspc.org).

"Impact of Peer Substance Use on Middle School Performance in Washington: Summary." A report by Washington Kids Count. [www.hspc.org](http://www.hspc.org).

#### Notes

The Washington Assessment of Student Learning (WASL) is a standardized test administered by the Office of Superintendent of Public Instruction (OSPI) to 4th, 7th, and 10th grade students from late April to early May. This study analyzed 7th grade test scores in math, reading, and writing from the 1998-99 school year. During this year there were approximately 76,000 students with a valid score for at least one of the three subject areas. From this data we excluded students primarily enrolled in Special Education (8,169) and English as a Second Language programs (2,395), and Alternative schools (1,075). We also excluded 78 extremely small school districts (1,412 students) because financial allocations operate uniquely in these districts. Our final sample only included students who had a score on all three subject areas, so that we could use a mean WASL

score calculated using the three subject areas as our primary indicator of achievement. As a result, approximately 60,041 students were included in our final analyses, or 80% of the original sample. For a description of the statistical methods used in these analyses please see the technical summary at [www.hspc.org](http://www.hspc.org).

Poverty was measured as the percentage of children enrolled in the free or reduced price lunch program.

For a further discussion of special education funding concerns, please see the "Washington State Case Study on the Special Education Funding Formula" by the Washington State Institute for Public Policy.  
[www.k12.was.us/specialed/Publications/funding.asp](http://www.k12.was.us/specialed/Publications/funding.asp).

#### SAFETY AND SECURITY

##### **Key Indicators and Charts**

Data was obtained from:

1990-1999 Vital Statistics provided by the Washington State Department of Health, Center for Health Statistics

1990-1999 Comprehensive Hospital Abstract Reporting System (CHARS) Inpatient Discharge Database Reports produced by the Washington State Department of Health and the Washington State Community Hospitals

Washington State Population Survey and Intercensal Population Estimates provided by the Washington State Office of Financial Management

2000 Annual Report from the Governor's Juvenile Justice Advisory Committee (GJJAC)

## *sources & endnotes*



# WASHINGTON KIDS COUNT



This is the ninth annual report on The State of Washington's Children. It was produced by the University of Washington School of Public Health and Community Medicine in collaboration with the Human Services Policy Center in the Evans School of Public Affairs. This report is part of the Washington Kids Count project, which monitors the conditions of children and families in Washington, educates the public and policymakers about those conditions, and urges public action on behalf of improved outcomes.

## *Washington Kids Count Advisory Board*

Joseph Bell, Department of Social and Health Services (Ret.); Jean Carpenter, Washington State PTA; Larry Fehr, Pioneer Human Services; Dr. Maxine Hayes, Department of Health; Garrison Kurtz, Early Learning Foundation; Charles Langdon, Advancing Solutions to Adolescent Pregnancy; Dr. Hubert Locke, Evans School of Public Affairs; Dorothy Mann, Evans School of Public Affairs; Paola Maranan, Children's Alliance; Dr. Ed Marcuse, Children's Hospital and Medical Center; Dr. John Neff, Children's Hospital and Medical Center and Professor of Pediatrics at UW's School of Medicine; Dr. Sheri Reder, Health Communications Consultant, Children's Hospital and Medical Center and CHER; Paul Shoemaker, Social Venture Partners; Gerard (Sid) Sidorowicz, City of Seattle, Compass Project; Pam Tollefson, Office of Superintendent of Public Instruction; Peggy Walton, Community Volunteer.

Questions about the Family and Community, Health, or Safety and Security Sections should be directed to Fred Connell, (206) 543-8887. For questions about the Economic Well-Being and Education sections, contact Sheri L. Hill, (206) 616-1506. For further information about this or other Washington Kids Count reports, call us at (206) 685-7613. The reports are available online at <http://hspsc.org>.

# THE STATE OF WASHINGTON'S CHILDREN

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Many individuals have cooperated in the production of the 2001 State of Washington's Children report. Fredrick A. Connell, Associate Dean of the UW School of Public Health and Community Medicine, directs this project. Michelle Garrison, Research Consultant for the UW Child Health Institute, Richard Brandon, Executive Director of the UW Human Services Policy Center, and Sheri L. Hill, Assistant Director for Washington Kids Count, contributed sections of this report. Sumit Malhotra, Dorothy Mandell, and Jung-Chen Chang, UW graduate students and Research Assistants for the Washington Kids Count Project, researched and analyzed many of the indicators in this book.

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We thank the following agencies that offered data and assistance: Washington State Department of Health, Center for Health Statistics; Washington State Department of Health, MCH Assessment Section; Northwest Institute for Children and Families; Office of Superintendent of Public Instruction; Office of Financial Management; Department of Social and Health Services, Children's Administration, and Child Care Research and Analysis; Higher Education Coordinating Board; Association of Sheriffs and Police Chiefs; Washington State Employment Security; U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics; U.S. Bureau of the Census; U.S. Department of Health and Human Services, Maternal and Child Health Bureau; and the U.S. Medical Assistance Administration.

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