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Select photos throughout the book courtesy of David L. Smith. All photographs in this report were acquired independently and do not necessarily reflect a relationship to the discussion or indicator with which they appear.

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EXECUTIVE SUMMARY

This year’s book takes as its theme—Health Matters. While most health status discussions focus on access to medical care, the social and economic context of children’s lives has a far greater impact on their overall health. The emotional and physical dimensions of their family lives, the material and human resources in their neighborhoods, the support and institutional capacities in their communities—these components characterized as the social and economic determinants of health. Public policy plays a key role in shaping the social and economic environment in which children and families live.

ECONOMIC SECURITY

Children in economically insecure households are more likely to experience hunger and emotional distress than their more affluent counterparts. Between 2000 and 2010 the percentage of children living in families with income below the poverty level ($17,600 for a single-parent family of three, and $22,100 for a two-parent family of four) escalated from 14 percent to 23 percent—almost one of every four children. Even more disturbing, roughly one of every 10 children in the state lived in extreme poverty ($8,800 for a single-parent family of three, and $11,100 for a two-parent family of four). This percentage doubled over the decade—rising from 5 percent to 11 percent.

CHILD HEALTH

While mortality rates for children in the state declined dramatically over the decade, infant mortality and the percentage of babies born at low birthweight (less than five and one-half pounds) showed little or no improvement. Michigan’s efforts to improve child health through expanding access to health care by enrolling children in public health programs such as Medicaid and MIChild have helped maintain access to care. By 2010 roughly two of every five children in the state depended on Medicaid.

Asthma

Several chronic health conditions disproportionately afflict low-income children. Asthma, the most common chronic disease among children, causes the airways of the lungs to swell and narrow, which leads to wheezing, shortness of breath, chest tightness and coughing. A number of “triggers,” such as outdoor air pollution from industry or traffic or indoor air pollution from tobacco smoke, pets, mold or mildew, can result in an asthma attack. Roughly 3,800 hospitalizations of children ages 1-14 with asthma as the primary diagnosis occurred each year in Michigan in 2007-09.

Oral Health

Too many children suffer from dental decay and pain that cause difficulty chewing, concentrating, sleeping, and speaking. Roughly one in 14 third-graders in Michigan have immediate dental care needs as evidenced by pain, infection or swelling, and more than one in four have untreated dental disease. Most at risk were children without dental insurance, in low-income families and those without a dental visit in the past year.

Lead Poisoning
Roughly 750 of the 89,100 Michigan children under the age of 3 who were tested for lead levels were determined to have lead poisoning. While currently children with 10 or more micrograms per deciliter of blood are considered lead poisoned, research studies show a negative impact on children with lead levels as low as 5. Lead has a particularly devastating impact on young children when it can compromise the developing central nervous system. Without early intervention children can suffer long-term effects on cognitive capacity and behavior. By the time symptoms are apparent, irreversible damage has often occurred.

Obesity
Too much body fat heightens the risk for health problems such as heart disease, high cholesterol, high blood pressure, diabetes, sleep apnea, and cancer. Children in communities of color, which are disproportionately poor, have overweight/obesity rates substantially higher than white children in the state, similar to national statistics. Roughly one of every four white children and two of every five African American children in Michigan suffer from overweight; these rates reflect a significant number of children with serious threat to their mental and physical health now and in their future. Michigan can undertake a number of initiatives to address this challenge, but it can ill afford to stand by while increasing numbers of children suffer from severe and chronic health problems that interfere with learning and earning.

Adolescence
All three key indicators of adolescent well-being reflected improvement over the decade, but the rates and numbers still show substantial numbers of youth adversely affected and dramatic disparities by race/ethnicity and family income. In 2009 over 12,000 Michigan teenage girls became mothers—many of them before completing high school or postsecondary training or education. While dipping by 13 percent over the trend period, the death rate for Michigan teens ages 15-19 (56 deaths per 100,000) remained triple that of children ages 1-14 (17 per 100,000). The 2010 dropout rate meant that roughly 15,300 of the graduating class in 2010 left school without a diploma while an additional 16,700 stayed in school to continue their studies beyond the traditional four years. Dropout rates in 2010 declined for almost all Michigan subgroups, especially economically disadvantaged students who qualify for free or reduced prices in the School Lunch Program.

Child Safety
The rate of children confirmed as victims of abuse or neglect rose by 34 percent over the decade: in 2010, a total of 32,500 children in the state were confirmed as victims. More than four of every five suffered from neglect. The increase was mostly among cases considered low risk for further harm to the child. In contrast, the rate of children living in families investigated for abuse or neglect increased only slightly (6%) while the rate of children in out-of-home care dropped by a substantial 23 percent. In fiscal year 2010 seven of every 100 children in the state lived in families investigated for alleged child abuse or neglect—a total of roughly 165,000 children. Roughly 5,200 fewer children lived in out-of-home care in 2010 compared with 2000.

Education
The percentage of Michigan fourth-graders who did not perform at a proficient level on the math MEAP fell by 76 percent over seven years—from over one-third of test takers in 2003 to 9 percent in 2010. Similarly the percentage of eighth-graders not demonstrating proficiency in math declined by more than half—from 48 percent of test takers to 22 percent. Nevertheless, half of Michigan 11th-graders did not meet the proficiency level for math on the Michigan Merit Exam (MME) in 2010, slightly less than in 2008 (54%). As Michigan works to bring its state standards in line with the more rigorous national ones, more students in the state will have difficulty demonstrating proficiency. In the area of education, the glaring achievement gaps provide Michigan its most critical challenge: Relatively large percentages of the state’s disadvantaged children have not been able to demonstrate proficiency in reading and math. The state needs a coordinated strategy to address the scope of this disparity. For too many low-income students and those in communities of color, multiple barriers such as under-resourced schools, unstable and unhealthy housing, lack of reliable transportation, and hunger, exist. Community services to address the full scope of the family needs including physical and mental health must be in place to improve the social and economic circumstances in which children live.
INTRODUCTION

“The focus is on the role that public policy can play in shaping the social environment in ways conducive to better health. … While medical care can prolong survival and improve prognosis after some serious diseases, more important for the health of the population as a whole are the social and economic conditions that make people ill and in need of medical care in the first place.”


In order to grow into healthy adults, children need an environment that nurtures them. Loving families, safe streets, clean air and water, healthy homes, supportive neighbors, good schools, places and spaces to play and exercise—all these components are needed for optimal development.

This year’s book takes as its theme—Health Matters. While most health status discussions focus on access to medical care, the social and economic context of children’s lives has a far greater impact on their overall health. The emotional and physical dimensions of their family lives, the material and human resources in their neighborhoods, the support and institutional capacities in their communities—these components are now characterized as the social and economic determinants of health. Research is documenting how these factors influence overall health and development as well as life expectancy. Public policy plays a key role in shaping the social and economic environment in which children and families live.

A recent effort launched by the MacArthur Foundation seeks to explore in more detail the multiple ways housing affects opportunity and health. Researchers will assess the relationship between housing and labor markets, the impact of state and local regulations on land supply and access to affordable housing. They also will explore the housing cost-transportation nexus and housing’s role in health, particularly respiratory disease among children.¹

Health is sometimes viewed as a matter of personal choice in behaviors, particularly those affecting diet and exercise. But such personal choices do not occur in a vacuum. They are made in the context of available resources in families, neighborhoods, and communities. To illustrate, the sharp increase in child obesity has resulted from multiple factors, many of which involve socioeconomic conditions. Children in low-income families are less likely to be involved in extracurricular sports and exercise programs or have access to well-maintained neighborhood parks and recreational areas. Children in families with incomes below poverty ($17,000 for a single parent with two children and $22,000 for a two-parent family of four) experience significant limitations in their options for meeting their basic needs of housing, schools, food, and transportation—all of which affect their health.

The impact of the neighborhood setting on personal health was documented by findings from a recent research study of low-income women who were given the opportunity to move from a high-poverty neighborhood to one with less

poverty. After a time their rates of extreme obesity and diabetes declined. Such findings suggest that improving neighborhood environments may be a key strategy to prevent obesity and diabetes and foster health among poor families. Recent analysis of 2010 census data that shows more poor families living in areas where poverty is concentrated should be a cause for concern.

The relatively large and increasing share of children in Michigan families with income below the poverty level should raise major alarms. Not unrelated are public policy decisions which restrict access to programs that assist families to provide for their basic needs during economic downturns. These restrictions put the health of a substantial number of children at risk. Currently roughly one of every four children in the state lives in poverty, and, for many poor families, employment does not solve the problem of poverty. National data show that almost half of children living in two-parent families with income below the poverty line had at least one parent working full-time year-round.

Information in this year’s report reflects the impact on children as the economic distress in the state intensified over the decade. For example, the percentage of children eligible for and receiving food assistance escalated dramatically. The federally funded Food Assistance Program (also known as the Supplemental Nutrition Assistance Program), administered by the Michigan Department of Human Services, has been the most responsive to families in need—Michigan has one of the best records in the nation for serving those eligible. In several Michigan counties over half the children depend on the program to meet their nutritional needs.

Not surprisingly, investigations of child abuse and neglect escalated over the decade, as did the rate of confirmed child victims. When parents cannot find employment or earn enough to support their families, and the state “safety net” has been shredded, children suffer from “neglect”—the most common form of child maltreatment. Deprivation during childhood promises to have a long-term impact on the health and capacity of the next generation to learn and eventually earn a living as adults; the scale of this devastation will have highly adverse consequences for the future economic and social health of the state.


ECONOMIC SECURITY

“Food insecurity is a public health problem with serious consequences for children, including greater likelihood of depression, anxiety, poor academic performance, birth defects, and behavior problems.”

The Society for Research in Child Development (SRCD)

At the end of the decade many more children in Michigan lived in economically insecure families as unemployment persisted in the double digits. Between 2000 and 2010 the unemployment rate more than tripled in the state. No county was untouched by the downturn: two of the wealthiest counties—Ottawa and Oakland—saw their unemployment rates quadruple. Unemployment rates ranged from 8 percent in Washtenaw County to 23 percent in Baraga County.

For many job seekers, the shortage of jobs has meant persistent unemployment. By 2010 half of the unemployed were long-term; that is, they had been unemployed for at least half the year or 26 weeks. Many other workers have accepted part-time jobs or employment well below their skill level to maintain some household income. Such dire economic situations in many families has an impact on children—not only as a result of the stress on parents trying to make ends meet on significantly less income but also the instability created by the threat to meeting the family’s basic needs for food and shelter.

Both unemployment and poverty have been linked to food insecurity, defined as not enough food for an active healthy life, which threatens healthy child development. Children in economically insecure households are more likely to experience hunger than their counterparts in economically secure circumstances. Negative effects from food insecurity have been documented across the life span: nutritional deficiencies in pregnant women and babies born at low birthweight (less than five and one-half pounds); compromised brain development and immune functioning in young children; behavioral problems among school children; and the risk of suicide among adolescents. The scope of the problem was revealed in 2009 survey data that showed that almost one of every five American children was food insecure.

Two key indicators—the child poverty rate and the percentage of students qualifying for free or reduced priced meals in the School Lunch Program—are reviewed on the county profiles: Both reflect increasing numbers of families struggling to meet basic needs.

CHILD POVERTY

In 2009 roughly 59,300 more children in Michigan lived in families with income below the poverty level ($17,600 for a single-parent family of three, and $22,100 for a two-parent family of four) than in 2005. This expansion in the number of children in the state affected by poverty exceeds the entire child population of Ingham County.

Over those five years the child poverty rate in Michigan jumped 21 percent—from 18 to 22 percent, according to the SAPE estimates. By 2009 over half a million (513,550) children in the state lived in families with income below the poverty level. Almost all 83 Michigan counties experienced increases in child poverty with the large affluent counties of Oakland and Ottawa sustaining some of the most dramatic worsening—reflecting the substantial changes in employment opportunities. (Annual poverty rates in Michigan counties can be compared only back to 2005 due to methodological changes.)

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5 Ibid.

6 Small Area Income and Poverty Estimates are the only ongoing source of annual child poverty rates that can be compared across all counties.
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The rise in Michigan’s child poverty rate from the beginning of the decade through 2009 (available only at the state level from the American Community Survey) is even more stark—an escalation of 64 percent. Of even greater concern, more children in the state have slipped deeper into poverty: the percentage of children living in extreme poverty, that is, in families subsisting on income below half the poverty level, more than doubled over the decade—from 5 percent to 11 percent. (County data are not available to review various levels of poverty over this period.)

Given that the income amount defined as the poverty level threshold is not enough to cover even the average cost of basic needs, families living on less than half of that income are likely to be living in desperate circumstances. These families with less than roughly $10,000 gross annual income would be unable to afford even the average cost of shelter in most Michigan counties.

The unemployment rate...

- Rose at least 50% (55.6%–80.0%)
- Doubled (101.7%–198.1%)
- Tripled (208.7%–287.5%)
- Quadrupled (317.2%–326.9%)

Poverty rates vary dramatically by geography, age and race/ethnicity. The child poverty rate in Lake County was more than fivefold that of Livingston County (43% vs 8%). In 2009 only Livingston County had fewer than 10 percent of its children living in families with income below the poverty level. By 2010 more than one of every four of Michigan’s young children under age 5 (28%) lived in families with income below the poverty level, compared with the national average of 25 percent.

Racial/ethnic differences were even more glaring. With almost one of every two African American children living in families with income below the poverty level, they are worse off than their national counterparts—48 percent vs. 38 percent in the nation. They also suffer from a poverty rate triple that of the state’s white non-Hispanic children (16%). Alarmingly, more than one of every three Hispanic children in Michigan suffered from poverty. In fact,
Child poverty was higher in Michigan than the national averages for all groups except Asian children.

Young children under the age of 5 in Michigan are also more likely to live in families with income below the poverty level (28%) than their school-aged counterparts (22%) and their national peers (25%). Poverty among young children is of particular concern because research shows that the impact is more profound and long lasting when experienced at this critical period of development.

The federal poverty level as conceived in the 1960s is a dated measure in many respects. Although it has been adjusted for inflation over the years, many now-standard expenses such as child care were not considered. Nowadays children in families marginally above the poverty threshold are also considered economically insecure. Poverty analysts have determined that the average costs of basic needs—not including any allocation for retirement or such unexpected emergencies as a medical problem or a car repair—require an income that exceeds double the poverty level. Thus families with income between 100 percent and 200 percent of the poverty level also struggle to meet expenses.

By 2010 a substantial share of the children in Michigan—another fifth (22%)—were growing up in families with income between 100 and 200 percent of the federal poverty level—$35,100 for a single-parent family of three, and $44,200 for a two-parent family of four. In recognition of the inadequate poverty measure, eligibility for many programs, particularly nutrition support programs such as free or reduced prices in the School Lunch Program, is set above the poverty level. As a result, eligibility varies widely across multiple programs that assist low-income families.

Free Reduced Price School Lunch Program

Almost one of every two public school K-12 students was eligible for free or reduced priced school lunches in 2010. Students are eligible if their family income falls below 185 percent of the federal poverty level—$32,500 for a single-parent family of three and $40,900 for a two-parent family of four. Students in families with income below 130 percent of the poverty level are eligible for a school lunch without a charge, while those in families with income above 130 percent of the federal poverty level and below 185 percent of the poverty level pay a reduced price.

Over the years the larger share of students have qualified for a free lunch, and between 2008 and 2010, that percentage grew by six percentage points—from 35 percent to 41 percent of students. By 2010 almost three-quarters of a million (731,000) Michigan K-12 students qualified for a free or reduced price school lunch.
The percentage of Michigan K–12 public school students eligible for a free lunch or one at reduced price rose by 28 percent between 2006 and 2010—from 36 percent to 47 percent, almost half of all students. All 83 counties experienced rising percentages of eligible students. The share of eligible students ranged from 21 percent in Livingston County to an astonishing 93 percent in Lake County.

**IMPACT OF ECONOMIC INSECURITY**

Poverty reflects not only material hardship but also the emotional stress of coping with continuing financial instability. These factors heighten the risk of disease and untimely deaths. Children in low-income families also often suffer from multiple disadvantages such as living in inadequate housing in unsafe neighborhoods, in locations compromised by environmental hazards; attending low-quality schools; and enjoying little access to parks and other recreational opportunities.

The impact of disadvantage intensifies as children grow. Children who are born into disadvantaged circumstances often receive limited material and psychosocial advantages during early childhood and preschool and thus arrive at kindergarten unprepared for academic success. These are the students more likely to struggle in school, drop out before graduation, become teen parents, and have few skills to negotiate their roles in adulthood as workers, citizens, parents and community members.

Some programs such as the Supplemental Nutritional Assistance Program (SNAP) in Michigan called the FAP (Food Assistance Program) that soften the impact of economic insecurity on children and families have reached record levels of participation. Almost one of every three children in the state was eligible for FAP benefits in 2010: 760,000 children. Of concern is that the benefit was designed as a short-term measure to cover two-thirds of food expenses for an economy meal plan. For many cash-strapped families the average per person benefit of $125 per month represents the entire food budget. Furthermore Michigan’s new cash asset limit of $5,000 for FAP will present another barrier for families.

Participation in other programs such as cash assistance grew only modestly over the decade, despite the extended recession in Michigan. The erosion in some safety net programs has resulted from the imposition of more stringent eligibility requirements and freezing of benefit levels. The value of the cash benefit for a family of three now represents one-third of poverty level income. These policies threaten the well-being of the state’s youngest residents. Yet policymakers at both the state and federal levels have targeted these programs for even more cuts.
CHILD HEALTH

“Research evidence convincingly shows that continuous stress weakens the resistance to diseases and disrupts the functioning of the hormonal and metabolic systems. Physiological tensions provoked by stress make people more vulnerable to many serious illnesses....”

Juha Mikkonen and Dennis Raphael, Social Determinants of Health: The Canadian Facts

The linkages of health to a wider range of social, economic community factors are clear. To illustrate, University of Michigan researchers found that children living near major expressways in Michigan’s urban areas had a higher incidence of asthma. They also found that asthmatic symptoms in children living in these areas could be curtailed by air conditioners in their bedrooms. Unfortunately once the study ended, the families could not afford the cost of electricity for the air conditioners used in the research project. The fallout from the family’s shortfall is substantial—children with frequent episodes of asthma regularly miss school, and this persistent absenteeism threatens their long-term academic progress and achievement.

Children in impoverished families will disproportionately struggle with physical health, as well as encounter more mental health challenges. The stress level on their parents and the concentration of disadvantage within their communities or, in the case of rural families in poverty, their geographic isolation, also can carry a negative impact. Depression and desperation occur when chronic or long-term deprivations overwhelm the coping capacity of families. In sum, the rising poverty rates in Michigan communities over the last decade pose a real threat to all aspects of health for children and their families.

This report focuses on four key child health indicators. Three of these—the percentage of births to women with less than adequate prenatal care, the percent of babies born at low birthweight (weighing less than five and one-half pounds), and the infant mortality rate—death before 1 year of age—reflect health at the very beginning of life. The other measure—the death rate for children ages 1 through 14 provides a measure of child health after infancy through the preteen years. All of these measures reflect disturbing disparities by race/ethnicity and income. These disparities are not the result of “choice” by these children but more likely the desperate circumstances of their parents and the failure of public policy to create more equitable living conditions for families with children.

While many more children survive childhood these days, they also are more likely to suffer from chronic health problems, such as asthma and obesity. Data about these and other critical health issues such as oral health and mental health are not generally available at the county level although efforts to track some of these measures through the Michigan Care Improvement Registry, which currently includes immunization records and test results for lead poisoning, have been proposed.

LESS THAN ADEQUATE PRENATAL CARE

Roughly three of every 10 babies born in Michigan in 2008–09 were to mothers who did not receive adequate prenatal care, either because the care started in the third trimester or there were not enough visits during the pregnancy. Roughly 35,000 babies were born in 2009 to mothers who did not receive timely care. The percentage of mothers and babies affected ranged from 17 percent in Clinton County to 54 percent in the adjacent county—Gratiot.

The linkage between employment and health insurance in the state has meant that the escalation in unemployment has also compromised access to health insurance and thus to care. Women eligible for Medicaid (uninsured with incomes below 185 percent of the poverty level) are

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These data represent a two-year annual average because changes in the Michigan birth record implemented in mid-2007 preclude comparison with prenatal care data in previous years.
the most likely to receive less than adequate prenatal care; almost half these women do not receive timely prenatal care. Roughly half of low-income women qualifying for Medicaid due to pregnancy were not eligible beforehand. When they learn they qualify due to their pregnancy, they must find a provider who accepts Medicaid reimbursements, which are traditionally lower than the community standard.

Teens and women without a high school education are also at high risk of not receiving adequate care during their pregnancy. These women are also more likely to have chronic conditions that could jeopardize a healthy delivery.

Low income women without health insurance (Medicaid eligible) are most likely to receive less than adequate prenatal care.

Low-Birthweight Babies
Between 2000 and 2009, the percentage of low-birthweight babies—those weighing less than five and one-half pounds—rose slightly (7%) in Michigan—from 79 percent to 8.5 percent of total live births. Roughly 10,000 babies were affected in 2009. These babies are at higher risk of developmental delay, chronic disease and death than those born at higher weight. The Michigan rate ranked 36th among the 50 states—the best rate (ranked 1st) was Alaska with 6 percent of low-birthweight infants.

Among Michigan counties the lowest percentage (4%) of low-birthweight babies was in the Upper Peninsula county of Baraga, and the highest (10%) occurred in the state’s most densely populated county—Wayne. Wayne County has by far the largest concentration of births to African American women (46%), who have double the risk as white mothers to deliver a baby with low birthweight (14% versus 7%). Michigan’s rate for all babies and for African American babies was above the national average.

Infant Mortality
In 2009 roughly 900 infants in Michigan did not survive their first year—dying at a rate of 7.6 per 1,000 live births. Michigan’s infant mortality rate was worse than all but nine other states in 2007 (the latest year for which data across states are available). Between 2000 and 2009, the annual state rate declined by only 7 percent.

In 2009 just over 40 percent of infant deaths occurred within the first 24 hours—the majority in the first week of life. This pattern was similar among Michigan’s three major racial/ethnic groups with only roughly one-third of all infant deaths taking place after the first month.

More than two of every five infant deaths in Michigan occur within the first 24 hours, and there is little difference by race/ethnicity.
The Michigan infant mortality rate for African Americans, however, continues to be triple that of white infants in the state—15.5 deaths per 1,000 live births in 2009 compared with 5.4 deaths per 1,000 among whites. This is particularly disturbing as infant mortality reflects a broad range of influences including women’s health and well-being before and during pregnancy, social and community supports and access to medical care.

Despite some decline Michigan’s infant mortality rate for African Americans persists at roughly triple that among whites.

CHILD DEATHS
A child’s death has become a less likely event over the decade in Michigan. Roughly 150 fewer children died at the end of the decade, compared with the beginning—318 children in 2009 compared with 471 in 2000. The Michigan child death rate declined by one-quarter over the trend period—dropping from 23 deaths among 100,000 children ages 1-14 to 17 deaths per 100,000. Michigan also compared favorably with other states. In 2007 Michigan’s child death rate ranked 15th among the states. (Rhode Island ranked first with the lowest rate—9 deaths per 100,000 children.)

The chances of child death varied dramatically by geography and race/ethnicity in Michigan. Among the 34 Michigan counties that had a statistically reliable rate in 2009, Monroe had the lowest rate (10 deaths per 100,000 children), while Kalkaska had the highest (66 deaths per 100,000 children).

Michigan’s children of color encounter much higher risk of early death than white children. African American children between the ages of 1 and 14 were twice as likely to die as their white counterparts, and Hispanics had death rates 50 percent higher than whites. Compared with the national averages, white and Hispanic children in Michigan were less likely to lose their lives, but African American children were more likely to die during childhood than the national average. The difference between the Michigan and national averages was substantial for Hispanics.

Child death rates in Michigan were lower than the national averages for whites and Hispanics but higher for African Americans.

Among the 49 Michigan counties where an infant mortality rate could be calculated for a trend, most showed some improvement between 2000 and 2009. The infant mortality rate in Crawford County (17.9 deaths per 1,000 infants) was almost six times that of Clinton County (3.1).
HEALTH INSURANCE
Because of the recession and persistently high unemployment, Michigan ranked first in the nation in the number of people who lost health insurance between 2000 and 2009, according to a report from the Economic Policy Institute.9 Michigan’s efforts to improve child health through expanding access to health care by enrolling children in public health programs such as Medicaid and MIChild have helped to maintain access to care. In 2009 Michigan had the 5th lowest percentage (5%) of children without health insurance in the nation. (Massachusetts was the lowest with 3 percent.) Even employed parents may not have family health insurance as the escalating cost of health insurance premiums has caused many employers to cut back on family coverage and raise employee copays and insurance premiums.

By 2010 roughly two of every five children in the state depended on Medicaid to access health care. They represented over half of the program participants in the state. Children in Michigan qualify for Medicaid or MIChild with family income less than double the poverty level ($35,100 for a single-parent household of three, and $44,200 for a two-parent family of four.)

ASTHMA
Asthma is the most common chronic disease among children. Asthma is a disorder that causes the airways of the lungs to swell and narrow, which leads to wheezing, shortness of breath, chest tightness, and coughing. A number of “triggers” such as outdoor air pollution from industry or traffic or indoor air pollution from tobacco smoke, pets, mold or mildew, can result in an asthma attack.

Roughly 3,800 hospitalizations of children ages 1–14 with asthma as the primary diagnosis occurred each year in Michigan in 2007-09. Over those years the rate of 21 children per 10,000 hospitalized for asthma represented a 17 percent decline from the 1998–2000 rate of 25 hospitalizations per 10,000 children each year. (These data do not reflect the emergency room visits for severe asthma attacks.)

This improvement is largely driven by the 25 percent decrease in the child hospitalization rate for asthma in the state’s largest county—Wayne: the rate dropped from 49 per 10,000 children to 37 over the trend period. In 2009 Wayne County represented 37 percent of all hospitalizations among children for asthma compared with 44 percent in 2000, but still almost double its percentage (20%) of the state child population.

Even with the decline, the Wayne County child hospitalization rate for asthma still remained the highest among the 42 counties with rates in 2007-09. Ingham County followed closely with a rate of 36 per 10,000 children. These rates were roughly six times higher than that of Allegan County, which had the lowest (6 hospitalizations per 10,000 children ages 1-14).

ORAL HEALTH
Oral health is critical to overall health and well-being. Children with dental decay and pain may have difficulty chewing, concentrating, sleeping, and speaking. Chronic oral health problems in childhood can compromise permanent teeth.

Roughly one in 14 third-graders in Michigan have immediate dental care needs as evidenced by pain, infection or swelling, and more than one in four have untreated dental disease, according to a recent survey.10 Most at risk were children without dental insurance, in low-income families, and those without a dental visit in the past year.

With more children getting their health insurance through Medicaid, access to nonemergency dental care can be an issue in those counties without the Healthy Kids Dental component, which reimburses dentists at private rates. Unfortunately this program has not been extended to most of the urban counties in the state with the largest numbers of poor children.

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LEAD POISONING
Roughly 750 of the 89,200 Michigan children under the age of 3 who were tested for lead levels were determined to have lead poisoning. While currently children with 10 or more micrograms per deciliter of blood are considered lead poisoned, research studies show a negative impact on children with lead levels as low as 5. Lead has a particularly devastating impact on young children when it can compromise the developing central nervous system. Without early intervention, children can suffer long-term effects on cognitive capacity and behavior. By the time symptoms are apparent, irreversible damage has often occurred.

In recent years the focus has shifted from the affected children to determining that homes are healthy places for children to live, since older housing with lead-based paint is the source for most lead-burdened children. At particular risk are low-income children with reduced levels of calcium and iron in their diets. Although lead continues to threaten the health and development of hundreds of the state’s children, the problem will be compounded by current and proposed cutbacks in funding to address lead poisoning at both the state and federal levels. The state has eliminated its funding for lead poisoning prevention, and proposed federal funding for 2012 is severely cut or totally eliminated.

OBESITY
Similar to the situation nationwide, childhood obesity in Michigan presents a grave concern for parents and policymakers. Too much body fat heightens the risk for health problems such as heart disease, high cholesterol, high blood pressure, diabetes, sleep apnea, and cancer.

Children who live in families with income below the poverty level ($17,600 for a single-parent family of three, and $22,100 for a two-parent family of four) are more than twice as likely to be overweight or obese than their more affluent peers in families with income above 400 percent of the federal poverty level ($70,400 for a family of three, $88,400 for a family of four). Obesity and overweight among the state’s children are defined as having a Body Weight Index above the 95th (obese) or between the 85th and 95th (overweight) percentile based on age and gender. Michigan mirrors national averages for total child obesity as well as among most demographic groups; however, national averages reflect somewhat higher obesity rates among children in poor families than are reflected in Michigan (45% vs. 37%).

Children in communities of color, which are disproportionately poor, have overweight/obesity rates substantially higher than white children. Roughly one of every four white children and two of every five African American children in Michigan suffer from overweight; these rates reflect a significant number of children with serious threat to their mental and physical health now and in their future.

Overweight and obesity are much more prevalent for children who are poor or children of color in Michigan as well as the nation.

Addressing the disproportionate incidence of overweight/obesity among low-income children and those in communities of color should be a state priority. Michigan can undertake a number of initiatives to address this challenge, but it can ill afford to stand by while increasing numbers of children suffer from severe and chronic health problems that interfere with learning and earning. The state could impose a tax on soda pop and unhealthy snacks as have 29 other states. It could also increase access to physical education in schools, which are a key venue for increasing the availability of healthier foods and beverages for children. School meals should meet higher nutritional standards as should the fare available in vending machines and school stores. The state has already begun to offer guidelines to child care providers to increase physical activities and nutritious snacks and meals for children in their care, but much more needs to be done to address the problem in the most vulnerable communities.
ADOLESCENCE

“Research shows that the lives of adolescents are clearly influenced by the communities in which they live, particularly in terms of their participation in high-risk behaviors, such as drug use and sexual activities, their access to medical and mental health services, and the quality of their connections both within and outside their neighborhoods.”
Boardman & Saint Onge, 2005; Wilkenfeld et al., 2008—cited in KIDS COUNT Indicator Brief: Reducing the Teen Death Rate

Adolescence is a critical juncture in the life cycle. As youth transition from childhood to adulthood, they experience major changes in all aspects of their being—physical, social and emotional. It is a time when the supports in the family, neighborhood, and community are vital to ensuring a safe passage. While teenagers need to explore their growing independence and experiment with choices, they need to be protected from decisions that can have profound negative consequences. Access to resources that expand opportunities are particularly important for a successful transition to adulthood. Youth are particularly susceptible to the influence of peers, their own internal turmoil, and the effort to establish an identity.

Overall, key indicators of adolescent well-being show that improvements have occurred in Michigan for this age group over the past decade, but the rates and numbers still show substantial numbers of youth affected and dramatic disparities by race/ethnicity and family income.

BIRTHS TO TEENS AGES 15-19
Fewer Michigan teens are having babies. Michigan’s teen birth rate declined by 21 percent between 2000 and 2009—from 42 to 33 births per 1,000 teen females. In 2009 roughly 2,500 fewer Michigan teenagers gave birth than during a comparable period early in the decade. Nonetheless, the numbers affected are still relatively high—over 12,000 Michigan teenage girls became mothers, many of them before completing high school or postsecondary training or education. National analysis shows that most (82%) teen pregnancies are unintended; most teenagers realize that they are not prepared economically or emotionally to take on the responsibilities of parenthood. The challenge is to ensure that more teens have the necessary resources, skills and knowledge to prevent pregnancy.

While Michigan had one of the lowest teen birth rates in the nation in 2008—ranking 13th (the state’s best ranking on the 10 core KIDS COUNT indicators) among the 50 states, the national average is almost half again as high as that of the United Kingdom (UK) that has the next highest rate among 13 industrialized nations and eight times the rate of Japan. This substantially higher U.S. teen birth rate compared with those of other industrialized nations has significant implications as the state and the nation seek to promote and expand a more highly educated workforce. Young women who begin childbearing as teens often face significant barriers to completing the postsecondary education or training necessary to compete successfully in a global labor market.
U.S. teen birth rate in 2009 remained highest among industrialized nations.

Almost one of every five 15-year-olds in the U.S. will become a parent by age 20, but risk varies considerably by race/ethnicity.

Almost all Michigan counties mirrored the state trend of a decline in the teen birth rate; only six counties—Oceana, Barry, Crawford, Clare, Iron and Luce—showed no improvement. In Michigan counties, the teen birth rate ranged from 12 births per 1,000 female teens in Livingston County to 61 in Luce County.

Teenagers in communities of color face substantially higher risk of becoming parents during their teenage years than their white peers. Based on national teen birth rates in 2008, over one-fourth of Hispanic and one-third of African American 15 year-olds will give birth before age 20 compared with one-tenth of white 15 year-olds.11

Compared with national averages, African American teens in Michigan have slightly higher birth rates, and Hispanics and whites, somewhat lower so the disparity between African American and white teens in the state is even more pronounced, as is the impact of teenage childbearing in the African American community. Public policies that support comprehensive teen pregnancy prevention programs and enhanced educational opportunities in communities of color would help lessen these disparate outcomes by race/ethnicity.

11 Jennifer Manlove, David Murphy, Recent Trends in Teen Birth Rates and Related Data. Presentation to KIDS COUNT State Grantees. (October 19, 2011)

Teen deaths ages 15-19

The transition period of adolescence is a risky passage. The death rate for Michigan teens ages 15-19 is triple that of children ages 1-14—56 deaths per 100,000 teens compared with 17 per 100,000 for children. These teen deaths are often preceded by behaviors that jeopardize their safety.

Between 2001 and 2007 the incidence of several risky behaviors that heighten the risk of fatality among Michigan high school students showed substantial declines, particularly those behaviors that compromise safety in automobiles or increase the likelihood of suicide. On the other hand, those behaviors that reflect fear or threat of violence, such as carrying a weapon or dating violence, affected the same percentage of students or an even larger share of students in 2007 than in 2001. These patterns are also reflected in the causes of deaths among Michigan teens.

Michigan high school students reduced many risky behaviors between 2001 and 2007.

Source: Michigan Department of Education, Youth Risk Behavior Surveys

Source: Child Trends based on 2010 U.S. Vital Statistics

Fewer teens are dying in Michigan. Over the decade the rate of teen deaths in the state dropped by 13 percent—from 64 to 56 deaths per 100,000 teens ages 15-19. Of note is that this rate understates the risk to males who represent three of every four deaths in this age group.

In 2009, 412 Michigan teens lost their lives from all causes. Accidents, primarily auto accidents, caused most of the deaths among these youth. First-year drivers are particularly vulnerable, and per mile driven, teenage male drivers are four times more likely to be involved in a crash as older drivers, according to the Centers for Disease Control and Prevention.12 Studies have also shown that youth in rural counties are at higher risk due to two-lane roads often with limited visibility and gravel surfaces.

While the overall rate of deaths declined over the last 15 years, data from recent years show an uptick in the death rate, particularly from accidents and homicide. Homicide deaths among youth have returned to rates as high as those at the end of the last decade: between 2003 and 2009 the rate doubled—from seven homicide deaths per 100,000 youth to 14 deaths per 100,000. In contrast, the suicide rate among youth has risen by only 1 percentage point from the decade low in 2003—from 7 deaths per 100,000 to 8 deaths per 100,000 youth.

Of further concern is that this escalation is concentrated within the African American community. While accidents were more likely to cause death among white and Hispanic youth, among African American teens homicide claimed more lives—representing almost 60 percent of all deaths. The rate of deaths by homicide among African American youth was roughly 30 times the white rate, and six times the Hispanic rate. Hispanic youth had significantly higher rates of death due to accidents than African American or white youth. These dramatic differences in causes of death for youth by race/ethnicity reflect vastly different life experiences of Michigan’s youth population.

Across the 35 Michigan counties where reliable trends could be calculated, the teen death rate dropped in 25 counties. The rate ranged from a low of 24 deaths per 100,000 teens in Ingham County to a high of 187 per 100,000 in Otsego County.
More Michigan teens are staying in school. Michigan’s high school dropout rate declined by over one-quarter between 2007 and 2010—from 15 percent of the class of 2007 to 11 percent of the class of 2010. The 2010 dropout rate means that roughly 15,300 of the graduating class in 2010 left school without a diploma. An additional 16,700 stayed in school to continue their studies beyond the traditional four years. Youth leaving school without a diploma in these years will have a more difficult time than previous generations completing that credential at a later time since adult high school completion programs have been drastically cut in Michigan.

Dropout rates in 2010 declined for all Michigan subgroups except Native Hawaiian/Pacific Islanders. The most dramatic improvement occurred for economically disadvantaged students who qualify for free or reduced prices in the School Lunch Program. These youth live in families with income below 185 percent of the federal poverty level ($32,500 for a single-parent family of three, and $40,900 for a two-parent family of four). Dropout rates among these disadvantaged groups were cut in half between 2007 and 2010—from 25 percent to 13 percent.

African American, Hispanic, and migrant youth continued to have the highest dropout rates—roughly 20 percent left school without a diploma, more than double the rate of white students and triple that of Asians who have the lowest dropout rate (6%). Youth without a high school diploma have much higher unemployment rates and much lower lifetime earnings, severely compromising their ability to support themselves. All subgroups except females, whites and Asians continued to have double-digit dropout rates in 2010.

Most Michigan counties (72 of 80) reflected the state trend of a decline in the dropout rate. Only seven counties experienced an increase in their dropout rates. Leelanau County had the lowest dropout rate (3%) while Lake County had by far the highest rate (22%), followed by Oscoda County (16%).

Unfortunately the substantial decrease in dropout rates has not yielded an increase in the on-time graduation rates—in 2010 more students continued in high school than dropped out. Between 2007 and 2010 the on-time graduation rate remained essentially the same. However, as more students, particularly low-income and youth of color, remained in school, more were able to graduate. By 2009 graduation rates for low-income students in the class of 2007 jumped from 61 percent to 76 percent, and for African American students from 56 percent to 64 percent. On the other hand, the dropout rates for that class rose from 15 percent to 17 percent at the end of six years.
While Michigan is seeing improving trends on most indicators specific to this age group, adolescents are also affected by other indicators of health, economic security and child safety. For example, the prevalence of obesity in this generation is of critical concern, as is the erosion in the economic well-being of their families. Furthermore, employment opportunities for young people have been drastically reduced in both the private and public sector. Summer youth employment has been curtailed, and many older workers now compete for jobs previously held by young people. This lack of job experience will jeopardize successful transition to the world of work for some youth. Those who pursue postsecondary education—increasingly a requirement for a job with adequate earnings—may find that the cost of continuing education in debt burden may outweigh the earning potential as wages erode.

It is clear that the state must strengthen the systems that support children and families through the adolescent years. Comprehensive programs that help more youth, particularly those in communities of color, make successful transitions to adulthood will strengthen the state’s economic competitiveness. The persistence of dramatic disparities in outcomes for Michigan’s young people based on their race/ethnicity or the income level of their families demands attention. Policies that ensure high-quality educational opportunities from pre-K to college, promote community and family involvement, provide early identification and support for struggling students, and promote a safe and supportive school atmosphere will improve outcomes for more teens.

As larger shares of children and youth come from disadvantaged families and communities, their futures will have a more extensive impact on the economic viability of the state.
The most vulnerable children are those whose parents or guardians do not have the resources—financial, emotional, mental or physical—to care for them. In order to grow, develop and maintain health, children need to have their physical and emotional needs met, and be protected by their parents or guardians from harm or potentially harmful activities and events. Sometimes the parents or guardians of children are incapacitated temporarily, and the situation can be remedied by services or other interventions, but other times the situation may be serious and long term.

Children whose parents or guardians cannot provide adequate care for them often come to the attention of Child Protective Services (CPS) at the Michigan Department of Human Services. Traditionally children with health problems or disabilities are at higher risk for abuse or neglect, and maltreatment, including neglect, can also create health problems or disabilities. As more children live with chronic health conditions, and more families experience stress due to social and economic deprivations, the risk of abuse or neglect escalates.

Aggravating the situation in Michigan, investments in programs to strengthen families and prevent abuse or neglect have been severely cut or eliminated over the past decade. Prevention programs are critical: Once abuse or neglect occurs, damage to children has been done. In Michigan in 2009 four of five child victims suffered from neglect—meaning there was harm or threatened harm to a child’s health or welfare, including the failure to provide adequate food, clothing, shelter or medical care or to protect a child from an unreasonable risk. In considering neglect it is important to take into account the societal and environmental factors that compromise a parent’s ability to provide for the basic needs of a child. Social isolation, poverty, mental illness, substance abuse or domestic violence often are involved in cases of neglect. High unemployment and inadequate social programs play a role in the incidence of child neglect.

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**CHILD SAFETY**

“Research suggests that adults who were maltreated as children show higher rates of many health problems not typically associated with abuse and neglect, such as heart disease, cancer, chronic lung disease, and liver disease. The link between maltreatment and these diseases may be depression, which can influence the immune system and may lead to high-risk behaviors such as smoking, substance abuse, overeating, and sexual risk-taking.”


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Physical neglect is the most common form of child maltreatment in Michigan.
Complaints or allegations of child abuse or neglect are made to CPS by both mandated and non-mandated reporters. In 2010 roughly 121,000 reports were made to CPS about suspected child abuse/neglect. The majority were made by mandated reporters, those in professions required to report if they suspect abuse or neglect. Law enforcement (11,300) lodged the most complaints, followed by school counselors (5,949) and hospital/clinic social workers (5,900). Among the nonmandated reporters, almost 7,300 reports were provided anonymously and 6,200 were by relatives of the affected children. Staff at CPS determine whether the reported incident meets the definition of child abuse or neglect and merits an investigation—those that do not are screened out, and some are referred to law enforcement or integrated into an ongoing case.

CHILDREN IN INVESTIGATED FAMILIES

In fiscal year 2010 seven of every 100 children in the state lived in families investigated for alleged child abuse or neglect—a total of roughly 165,000 children. (Each report or case represents a family, often with more than one child.) Over the decade the rate of children in investigated families went up by 6 percent in Michigan—rising from 66 of every 1,000 children to 70 of every 1,000 children ages 0-17.

Investigations and confirmed cases of child abuse and neglect peaked in 2010.

Confidential victims of child abuse or neglect

In 2010 roughly 32,500 children in Michigan—almost equal to the entire child population in Calhoun County—were confirmed as victims of abuse or neglect. The rate of confirmed child victims of abuse or neglect in the state rose by one-third between 2000 and 2010—from 10 to 14 of every 1,000 children. Child abuse or neglect is confirmed when the majority of the evidence reviewed in the investigation indicates that maltreatment has occurred.

In 2010 all three categories of confirmed abuse or neglect showed an increase compared with 2005, with the largest increase (70%) in those determined as Category III where the risk to children is considered low or moderate. For these families the child remains in the home, and CPS must assist in obtaining the appropriate community services for the family to prevent further abuse or neglect. The number of confirmed victims in the highest risk Category I, which requires a petition for court action, rose by 9 percent. The number of victims determined to be Category II, which requires CPS to open a case and provide services reflected the smallest increase.

At the end of an investigation of abuse or neglect, cases are assigned to a category based on the result of evidence and risk to the child. Cases of confirmed abuse or neglect are assigned to categories I, II, or III, based on level of continuing risk of harm to the child(ren). Unconfirmed cases, designated as categories IV and V, comprise roughly three-quarters of all cases investigated. In such cases the evidence of child maltreatment is inadequate or nonexistent so the case cannot be confirmed.

13 Names of individuals are placed on the statewide abuse and neglect Central Registry if an investigation confirms that they have abused or neglected their child and the future risk to the child is high or intensive (category I or II). The Central Registry is a internal government document accessible only to such individuals as the following: a physician treating a child suspected to have been abused or neglected, law enforcement or a child protective agency investigating a report of known or suspected child abuse or neglect, an adoption agency or foster care placement agency.
The number of confirmed child abuse/neglect cases designated as low/moderate risk (category III) rose by 70 percent in six years.

While confirmed victims in 2010 were evenly divided by gender, younger children under the age of 4 were at highest risk—they represented two of every five victims. African Americans represented 29 percent of confirmed victims, roughly double their proportion (14%) of the state’s total child population. Recent studies of decision making within CPS suggests some of this disproportion results from racial bias at key decision points, and a state task force has been assembled to implement strategies to address the issue.

Higher incidence of such factors as poverty, teen parenthood, neighborhoods with more consistent contact with police, lack of prevention services, and poor prenatal care, in communities of color also elevate the risk of involvement in the system. These factors also often result from racial bias within other systems.

The increase in the incidence of child abuse and neglect in Michigan over the trend period was widespread. Only seven Michigan counties experienced a decline in their rate of child abuse and neglect—with decreases of at least one-quarter in Presque Isle, Wayne, Cass and Clare counties. In almost 30 counties, however, the rate at least doubled over the decade, and even quadrupled in Lake, Eaton and Iron counties. The rate of confirmed victims ranged from three victims among every 1,000 children in Presque Isle to 46 among every 1,000 children in Lake County.

While the rates of investigation and confirmation of child abuse and neglect rose over the decade, the rate of children being placed in out-of-home care declined. Much of this can be explained by reviewing the trends in the categories: growth occurred in confirmed cases deemed low-risk (Category III) where children would remain in the parental care with services. A substantial increase in the number of finalized adoptions in 2008 and 2009 also contributed to significant declines in the number of children living in foster care.

In Michigan the rate of children in out-of-home care due to abuse or neglect actually dropped by almost one-quarter between 2000 and 2010—from roughly 7 children of every 1,000 to 5 children of every 1,000 despite the increases in investigations and victimizations. The total number of children in foster care declined from over 17,000 to roughly 12,000. This may partially be a result of the efforts of the department to move more so-called “legal orphans” out of the foster care caseload into permanent situations such as adoption or legalized guardianships. (Legal orphans are those children eligible for adoption but who remain in foster care.) The increase in funding and staffing available for foster care support and monitoring due to the lawsuit and settlement agreement to improve conditions and outcomes for children in Michigan’s foster care system also have undoubtedly influenced these trends.
More child victims in Michigan were confirmed since mid-’90s, but fewer removed from family in recent years.

One of the challenges in providing for abused or neglected children is recruiting and sustaining the supply of foster homes for those whose parental homes are not a safe place. Over the years Michigan has increasingly relied on relatives. In 2011 children in care were equally likely to be living with relatives as living with foster parents. While maintaining the child within the extended family has advantages such as emotional stability and maintaining familial relationships, unlicensed kinship providers do not receive the financial support available to licensed foster parents ($14–$17 per day vs. $4.50 per day) unless parental rights have been terminated, and the child is a permanent ward of the state. Currently 22 percent of unlicensed providers qualify for the increased rate due to caring for permanent wards.

Two of five children in out-of-home care for abuse or neglect resided with a relative or a guardian.

Most counties experienced an increase in the rate of children living in out-of-home care for abuse or neglect, but the rate in Wayne dropped by half over the decade, which meant roughly 4,500 fewer children just from that county entered care in 2010 than in 2000. Among the 76 counties with a rate for children living in out-of-home care for abuse or neglect, Lapeer had the lowest rate of 1 of every 1,000 children and Crawford the highest—17 of every 1,000 children.

In 2011 Michigan’s Department of Human Services, under a recent lawsuit settlement agreement, was directed to increase the number of relative foster care providers that are licensed. DHS has committed to licensing 55 percent of new relative foster parents within 180 days of placement of a child in the relative’s home by June 30, 2012; 65 percent by December 31, 2012; 75 percent by June 30, 2013 and 85 percent by December 31, 2013. These commitments will require expediting what has been a much more time-consuming process. Roughly 38 percent of relative foster care providers were licensed providers as of October 2011, according to department staff. Specialized workers in the department have been detailed to facilitate and expedite the process.
EDUCATION

“The roots of children’s learning and health begin in early childhood. From birth on, children’s life experiences contribute to their outcomes. Families are the locus for most of those experiences, but they must be supported by informal networks, communities that recognize and support the critical involvement of families in children’s educational and health outcomes, policies that support and strengthen the family system in carrying out its roles ....”

Cathy Jordan. Associate Professor of Pediatrics and Neurology and Director of the Children, Youth and Family Consortium (CYFC) at the University of Minnesota.

Education is a lifelong process that begins at birth. This concept is embodied in the term cradle to career, which is used to describe a student-focused and integrated system from birth through postsecondary training or college. The expectation is that all students need to be ready to complete postsecondary studies in order to have the skills for a job with an adequate wage. The importance of nurturing learning in the earliest days of life has been bolstered by research documenting the rapid growth of the brain in early childhood. Improving prevention and intervention programs in the earliest years provides the greatest opportunity to ensure optimum potential for brain development and lifelong learning.

To improve educational outcomes, the vital linkages to community services, supports for families, mental health services, school-based health, quality child care, school health education, after-school and summer enrichment programs must begin in the earliest years and continue through high school. The academic success of children is grounded in their circumstances at home, in school, in the neighborhood and community. Children who are healthy—both emotionally and physically—are much more likely to succeed as students. Those who miss school due to asthma attacks or fear of bullies, fall behind. In like manner, all schools must have the resources to intervene quickly and effectively when students are falling behind, to create a safe and nurturing school climate, and to provide high quality educational opportunities for all children.

Programs such as home visiting that sometimes begin even before the birth are a key intervention for at-risk parents. Home visiting programs have proved to be successful in improving the lives of newborns and their mothers. Federal funding through the Affordable Care Act will enable Michigan to coordinate and expand evidence-based home visiting programs in high-risk communities. Ongoing visits after the birth help mothers access services and improve parenting skills from the very outset of their children’s lives.

Efforts to coordinate services and programs for young children at the local level through Great Start Collaboratives will now be reinforced at the state level through the newly created Office of Great Start. This new office housed in the Michigan Department of Education was authorized in 2011 by an Executive Order (2011-8) to “create a coherent system of health and early learning that aligns, integrates and coordinates Michigan’s investments from prenatal to third grade." Such a system ensures that more children get what they need from birth through early elementary grades so that they are able to read proficiently by the end of the third grade, a critical benchmark in a child’s educational development and a key measure of success according to the Governor’s planning and position papers.

14 The terms P-16 (preschool through four years of college) and P-20 (prenatal through age 20) are also used to capture this perspective.

15 Evidence-based programs are those that have been found to be effective (the program produces the desired positive results) based on the findings of rigorous and peer-reviewed evaluation.
While the ambitious federal *No Child Left Behind* legislation sought to have all the nation’s children proficient in reading and math by 2014, many states, including Michigan, are now seeking waivers to that requirement. As Michigan works to bring its state standards in line with the more rigorous national ones, even more students in the state will have difficulty demonstrating proficiency. Michigan proposes to reduce the law’s expectation to 80 percent of students prepared for college and career in the next 10 years.

Michigan has a long road ahead to achieve this goal. Just under one-third of Michigan fourth-graders demonstrated proficiency in reading (31%) on the 2011 National Assessment of Educational Progress (NAEP), the standard for measuring academic proficiency across the states. Overall Michigan 2011 results were roughly the same as the national average and not significantly different from those of 1992. Substantial gaps in the Michigan results persist by income and race/ethnicity. The gap between white and African-American students in 2011 was 34 points, and between whites and Hispanics, 19 points. This achievement gap between African-American and white fourth-graders was the second largest in the nation. Roughly nine of every 10 African American fourth-graders in the state did not demonstrate proficiency (92%) in reading, nor did four of every five Hispanics (80%), compared with roughly two of every three whites (63%). Lower-income fourth-graders—those eligible for free or reduced price lunch—were also more likely to score below proficiency (83%) compared with higher-income students (57%).

NAEP results for math at the fourth and eighth grade reflect similar achievement gaps for disadvantaged children. The latest NAEP math results for Michigan eighth-graders show an average score of 280, lower than the average scores in 25 other states. Over two-thirds of Michigan eighth-graders (69%) could not demonstrate proficiency on the national test, compared with only 22 percent failing to do so on the Michigan Educational Assessment Program (MEAP). (Each state develops its own tests for the various grades and subjects and determines how many correct answers reflect proficiency.)

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- **2000**
  - Below Basic: 32
  - Basic: 39
  - Proficient: 24
  - Advanced: 4

- **2003**
  - Below Basic: 32
  - Basic: 40
  - Proficient: 24
  - Advanced: 5

- **2005**
  - Below Basic: 32
  - Basic: 38
  - Proficient: 24
  - Advanced: 6

- **2007**
  - Below Basic: 34
  - Basic: 38
  - Proficient: 23
  - Advanced: 6

- **2009**
  - Below Basic: 32
  - Basic: 37
  - Proficient: 24
  - Advanced: 7

- **2011**
  - Below Basic: 29
  - Basic: 40
  - Proficient: 25
  - Advanced: 6

**2011 US**
- Below Basic: 28
- Basic: 39
- Proficient: 26
- Advanced: 8

Source: U.S. Department of Education, National Center for Education Statistics

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17 Students in families with income below 185 percent of the poverty level ($32,500 for a single-parent family of three and $40,900 for a two-parent family of four) qualify for School Lunch at free or reduced prices.

18 The 2011 MEAP and MME results will not be comparable to previous years as students will have to answer many more questions correctly to be deemed proficient. This change will bring the state more in line with the NAEP standards, but the percentages of Michigan students attaining proficiency on the MEAP and MME are expected to decline significantly in 2011.
FOURTH-GRADE MATH MEAP
The 2010 MEAP results showed substantial improvement in and math proficiency among Michigan fourth-graders compared with those in 2003. The percentage of fourth-graders who did not perform at a proficient level fell by 76 percent over the seven years. Only 9 percent of Michigan fourth-graders tested below proficiency level in 2010 compared with over one-third in 2003. The improvement was reflected across all 82 Michigan counties with test results. Across the counties the percentage of fourth-graders not showing proficiency in math ranged from roughly 3 percent in Antrim to 17 percent in Oscoda.

EIGHTH-GRADE MATH MEAP
Similarly math proficiency improved substantially among Michigan’s eighth-graders on the MEAP test. The percentage of Michigan eighth-graders who did not demonstrate proficiency in math dropped from 48 percent of test takers in 2003 to 22 percent in 2010. Nonetheless, these results still mean that a relatively large number (226,700) of Michigan eighth-graders in 2010 did not demonstrate math skills deemed as proficient for their grade level.

Across Michigan counties, the percentage of eighth-graders not performing at proficient levels on the MEAP math test ranged from 7 percent in Mackinac County to 17 percent in Lake County.

11TH-GRADE MATH MICHIGAN MERIT EXAM
Half of Michigan 11th-graders did not meet the proficiency level for math on the Michigan Merit Exam (MME) in 2010, compared with 54 percent in 2008. The percentage change was an 8 percent improvement over the three years. Among Michigan counties the percent of 11th-graders not demonstrating math proficiency ranged from 30 percent in Ottawa to 70 percent in Lake. Almost every county (73 of 82) showed improvement over the trend period; only five counties sustained double-digit change for the worse.

SPECIAL EDUCATION
Roughly 14 percent of Michigan students received special education services in 2010—approximately 226,700 students ranging in age from 3 to 26. These services are vital for improving achievement and long-term outcomes for children with special needs. Part B of the federal Individuals with Disabilities Education Act (IDEA) requires school districts to identify and evaluate students who may need special education services. If found eligible, a student must be provided with an Individualized Education Program (IEP) that outlines education goals and steps to achieve them.

In Michigan most children are identified in the teen years; however, the largest number identified—19,800—for a single year were the 12-year-olds. Since 2002 the total number of special education students has remained quite stable—ranging as high as 250,000 in 2005 to the 2010 low. Between 2002 and 2009 the number of preschool and young adults receiving special education services increased by a total of 5,000 across both groups.

In the area of education the glaring achievement gaps provide Michigan its most critical challenge: Relatively large percentages of the state’s disadvantaged children have not been able to demonstrate proficiency in reading and math. The state needs a coordinated strategy to address the scope of this disparity. For too many low-income students and those in communities of color, multiple barriers, such as under-resourced schools, unstable and unhealthy housing, lack of reliable transportation and hunger, exist. Community services to address the full scope of the family needs, including physical and mental health, must be in place to improve the social and economic circumstances in which children live.

Without a focused effort to outline a comprehensive approach, coordinate a strategy, and provide the resources, including instructional materials and professional development, Michigan will continue to fall behind as other states make the commitment to ensure all children succeed academically.
BACKGROUND INDICATORS
(in order of appearance on profiles)

Population
Estimated populations for 2000 and 2010 of children ages 0-17, 0-4, 5-9, 10-14, and 15-19, and all people, along with the percent change. The calculation uses a model that incorporates information on natural changes such as births and deaths and net migration that has occurred in an area since the 2000 Census.

Source: U.S. Census Bureau, State and County Population Estimates

ACCESS TO HEALTH CARE
Children Ages 0–18 Insured During 2007-09
The estimates are a three-year average based on the Current Population Survey conducted by the U.S. Census Bureau. The estimate for each year includes children who were insured at any point during the year.

Source: Small Area Health Insurance Estimates (SAHIE)

Children Ages 0–18 Insured by:
- Medicaid: The number reflects the enrollment in Medicaid as of a point in time (December 2010). All children covered by Medicaid are included in these totals; children qualify through several different programs such as the cash assistance programs or Family Independence Program (FIP) and Supplemental Security Income (SSI). The percentage is based on the estimated population of children ages 0-18 in 2009.
  Source: MAXIMUS. MChild Monthly Executive Summaries

- MChild: This program provides health insurance to children ages 0–18 in families with income between 150–200 percent of the federal poverty line, with some restrictions. The number is the average of the monthly

Fully Immunized Toddlers Ages 19–35 Months
The number reflects children ages 19–35 months who had completed the vaccination 4:3:1:3:3:1 Series Coverage as of December 2010, according to the Michigan Care Improvement Registry (MCIR). The series includes: four injections of DTaP (diphtheria, tetanus, and pertussis) vaccine; three of poliovirus vaccine; one measles-containing vaccine; three of influenza; three of Hepatitis B., and one varicella (chickenpox). All of these vaccinations are scheduled to be completed by the age of 19 months. The percentage is based on the population of children ages 19–35 months who were born to mothers residing in Michigan at the time of the birth. The state immunization rate from the MCIR continues to reflect lower rates than that from the National Immunization Survey (NIS): 70.0 percent for December 2010, compared with the NIS rate of 73.9 percent for children born between July 2006 and January 2009.

Source: Michigan Care Improvement Registry (http://mcir.org)

Lead Poisoning in Children Ages 1–2 Years
- Tested: The number of children ages 1-2 who were tested for lead in 2010. The percent tested is based on the number of children ages 1-2 as of July 2009.
- Poisoned (% of tested): This number reflects children ages 1-2 whose test showed 10 or more micrograms of lead per deciliter of blood (mcg/dL). The percent is based on the number of children ages 1-2 whose tests were then confirmed by a venous blood test.

Source: Michigan Department of Community Health, Childhood Lead Poisoning Prevention Program, 2010
Children Ages 1–14 Hospitalized for Asthma (rate per 10,000)  
This number represents Michigan hospital discharges of children ages 1–14 with asthma recorded as the primary diagnosis. Data are reported by the county residence of the patient. The number reflects the three-year average for 2007-09, and the rate indicates the annual average incidents per 10,000 children ages 1–14 during 2007–09. Rates are calculated by the Bureau of Epidemiology at the Michigan Department of Community Health, using 2007 Michigan population estimates for the 2007-09 period. Rates are provided only for counties with a three-year total of more than 20 hospital discharges for children diagnosed with asthma, and numbers for those with more than 4 incidents.  
Source: Michigan Department of Community Health, Division of Epidemiology Services

Children with Special Needs

Babies with a Birth Defect  
The numbers reflect the annual average of infants reported with a birth defect over the three-year period 2006–08. Only infants who are identified with at least one of over 800 types of defects within their first year of life are counted. The percentage is based on the average numbers of live births during 2006–08. Location is based on the residence of the mother. A recent analysis of the Birth Defects Registry Database suggests that differences in the reporting of ambulatory cases in clinics or physicians’ offices after babies leave the hospital may explain much of the variation in county rates. Birth defect data are continually revised, so any count reported here for prior years may not match previous reports. Also, the reports no longer include cases of patent ductus arteriosus in newborns under 2,500 grams.  
Source: Michigan Department of Community Health, Michigan Birth Defects Registry

Students in Special Education  
The number includes all individuals ages 0 through 26 receiving special education services as of December 2010 except those in programs operated by the Michigan Departments of Corrections, Community Health, and Human Services. These students have been diagnosed with a mental or physical condition that qualified them for special education services. The percentage is based on the enrollments from the Free/Reduced Price Lunch data file.  
Source: Michigan Department of Education, Special Education Services, and the Center for Educational Performance Information (http://www.mich.gov/cepi)

Children Receiving Supplemental Security Income (rate per 1,000)  
The number reflects children recipients of Supplemental Security Income (SSI) as of a single month (December 2010). SSI is a federal Social Security Administration program of cash and medical assistance for elderly and disabled persons, including children. Low-income children under age 18 are eligible if they have special health care needs as defined by SSI criteria, require institutional care but can be cared for at home for less cost, are “Department Wards,” that is, receiving foster care or for whom there is an adoption assistance agreement (Title IV-E). The rate is per 1,000 children ages 0–17 in 2009.  
Source: Michigan Department of Community Health. Special Run for December 2010

Family Support Programs

Children Receiving:  
- Subsidized Child Care: This number reflects children, ages 0-12, in child care whose parents received a subsidy payment from the state in December 2010. Eligibility for child care subsidies is based on participation in the Family Independence Program (cash assistance), a family preservation program or income below roughly 139% of the poverty level. The percentage is based on the estimated population of children ages 0-12 in 2009.  
Source: Michigan Department of Human Services, Child Development and Care Program, Assistance Payments Statistics, December 2010, Table 69
• **FIP Cash Assistance:** The number reflects child recipients in the Family Independence Program (FIP) in a single month (December 2010). The number includes regular FIP only, excluding extended FIP. FIP provides cash assistance (maximum $492 per month for a three-person family) to needy families with minor children for a total of 48 months. Families with assets less than $3,000 and a gross monthly income below $810 can qualify for a prorated subsidy. The percentage is based on the estimated population of children ages 0-18 in 2009.

Source: Michigan Department of Human Services, Assistance Payments Statistics, Table 4, December 2010 (for counties); special run for Detroit data.

• **Food Assistance Program:** The number reflects child recipients ages 0-18 in the Food Assistance Program (FAP), also known as the Supplemental Nutritional Assistance Program (SNAP) in a single month (December 2010). This federal program provides voucher/food stamp benefits for the purchase of food. The number of children includes those whose families qualify with incomes below 130 percent of the poverty level. The percentage is based on the estimated population of children ages 0–18 in 2009.

Source: Michigan Department of Human Services, Assistance Payments Statistics, Table 68, December 2010 (for counties); special run for Detroit data.

Children with Support Owed
The number reflects children ages 0-19 who had a child support order and should have received child support for at least one month during Fiscal Year 2010. The percent is based on the estimated population of all children ages 0-19 in 2009. The county represents the location of the court rather than the child’s residence.

• **Receiving None:** The number reflects children who received none of the support payments that were owed during Fiscal Year 2010. The percent is based on the number of children with support owed for at least one month during Fiscal Year 2010.

• **Receiving Less Than 70% of Amount:** The number reflects all children who received less than 70 percent of total support amount owed for Fiscal Year 2010 (including those who received none). The percent is based on the number of children with support owed for at least one month during Fiscal Year 2010.

Source: Michigan Child Support Enforcement System (MiCSES). Special Run Trend Indicators (in order of their appearance on state/county profiles)

**Economic Security**

**Children in Poverty Ages 0–17 and Ages 5–17**
The percentages for child poverty are based on the total number of children ages 0–17 in poverty in the years 2005 and 2009, and the percentages for school–aged child poverty are based on the number of related children ages 5–17 in 2005 and 2009. “Related” children include only those related to the head of the family by birth, marriage or adoption. These estimates are from the Small Area Income and Poverty Estimates (SAIPE), which are the only current source of child poverty data updated annually for all Michigan counties. Poverty rates for young children ages 0-4 are provided only for the state, but county rates for this age group cannot be derived from the SAIPE.


Note: in 2005, SAIPE modified its methodology so the 2005 SAIPE should not be compared with prior years.

**Students Eligible for Free/Reduced Price School Lunches**

Students from families with incomes below 185 percent of the poverty level are eligible for lunch at no charge or at a reduced price in the federal School Lunch Program. Students from families reporting income below 130 percent of poverty are eligible for a fully subsidized or “free” meal while children from families with incomes between 130 and 185 percent of the federal poverty line are eligible for reduced price meals. The percentages are based on total enrollments of K–12 public school students for school years 2006–07 and 2010–11, including “charter” schools (public school academies). Prior to 2006 the count was based on school-level data reflecting the “number of applications” rather than the current methodology of “number eligible” based on the single record student data. Beginning with 2009-10, the counts reflect those enrolled by October 31, not September 30 as in prior years.

Source: Center for Educational Performance Information http://www.mich.gov/cepi)
CHILD HEALTH

Less Than Adequate Prenatal Care
The number represents the mothers who received less than adequate prenatal care as defined by the Kessner Index, which measures adequate care by the month it began, the number of prenatal visits, and the length of the pregnancy. Included in the measure are some cases where data are unknown or missing. Due to a change in the birth certificate in 2008, data from previous years are not comparable. The number is an annual average for the two-year period of 2008–09. The percent is calculated on total resident live births, based on the mother’s county of residence.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

Low-Birthweight Babies
The number, which includes those babies who weighed less than 2,500 grams (approximately 5 lb. 8 oz.) at birth, is an annual average for the three-year periods of 1998–2000 and 2007–09. The percentage is calculated on total resident live births in the mother’s county of residence.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

Infant Mortality (per 1,000)
The number, which includes infants who died before their first birthday, is an annual average for the three-year periods of 1998–2000 and 2007–09. The rate is the number of infant deaths per 1,000 births during the reference periods in the mother’s county of residence. Since an infant death may occur in the calendar year following the birth year, some amount of error is introduced into the rate.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

Child Deaths Ages 1 to 14 (per 100,000)
The number of child deaths includes deaths from all causes. It is an annual average for the three-year periods of 1998–2000 and 2007–09. The rate is the number of child deaths per 100,000 children ages 1–14 during the reference periods in the child’s county of residence.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

ABUSE / NEGLECT

Children in Investigated Families
These children reside in families where an investigation of abuse or neglect was conducted in fiscal years 2000 and 2010. Families may be investigated more than once in a given year, and their children would be counted each time. The number reflects the total for the year. Rates are calculated per 1,000 children ages 0–17 in their county of residence. Data are merged for two sets of counties: Missaukee/Wexford and Grand Traverse/Leelanau.

Confirmed Victims of Abuse or Neglect
These numbers reflect an unduplicated count of children confirmed to be victims of abuse or neglect following an investigation in fiscal years 2000 and 2010. The operational definitions for child abuse and neglect are found in the Services Manual of the Department of Human Services. Rates are calculated per 1,000 children ages 0–17 in their county of residence. Data are merged for two sets of counties: Missaukee/Wexford and Grand Traverse/Leelanau.

Children in Out-of-Home Care
The number represents child victims of abuse or neglect who are in out-of-home placement supervised by the Department of Human Services, its agents or the courts, including children placed with a relative or guardian during fiscal years 2000 and 2010. The county represents the location of the court rather than the child’s residence. The rate is calculated per 1,000 children ages 0–17. The data are point in time from a single month (September) in the reference years.
ADOLESCENCE

Births to Teens Ages 15–19 (per 1,000)
The total number of births to teens ages 15–19 is an annual average for the three-year periods of 1998–2000 and 2007–09. The rate of teen births is based on the number of live births per 1,000 females, ages 15–19 for those periods by county of residence.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

Teen Deaths (per 100,000)
The number, which includes deaths from all causes to teens ages 15–19, is an annual average for the three-year periods of 1998–2000 and 2007–09. The rate is based on the number of deaths per 100,000 teens in this age group for those periods in their county of residence.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

High School Dropouts
The number represents students who have dropped out of school or whose whereabouts are unknown. The percent is based on the adjusted cohort number. The cohort is the number of students entering ninth grade in 2003 (for the 2007 rate) or 2006 (for the 2010 rate); these counts are adjusted by transfers in and out of the state and students deemed to be exempt.
Source: Center for Educational Performance Information (http://www.mich.gov/cepi)

EDUCATION (NOT PROFICIENT IN MATH)

Fourth-graders
The numbers reflect fourth-graders whose performances on the Michigan Educational Assessment Program (MEAP) math test did not meet the standard of proficiency; they scored at Level 4 (Apprentice) or Level 3 (Basic) in 2003 and 2010. These performance levels are defined by a panel of educators and other stakeholders who use detailed descriptions of what students should know and be able to do at each level. The Michigan Board of Education approves the final cut scores and performance ranges. The percentages are based on the numbers of fourth-graders whose math test scores were included in the report.
Source: Michigan Department of Education (http://www.mich.gov/mmap)

Eighth-graders
The numbers reflect eighth-graders whose performances on the Michigan Educational Assessment Program (MEAP) math test did not meet the standard of proficiency; they scored at Level 4 (Apprentice) or Level 3 (Basic) in 2003 and 2010. These performance levels are defined by a panel of educators and other stakeholders who use detailed descriptions of what students should know and be able to do at each level. The Michigan Board of Education approves the final cut scores and performance ranges. The percentages are based on the numbers of eighth-graders whose math test scores were included in the report.
Source: Michigan Department of Education (http://www.mich.gov/mmap)

High School
The numbers reflect 11th-graders whose performances on the Michigan Merit Exam (MME) math test did not meet the standard of proficiency; they scored at Level 4 (Not Proficient) or Level 3 (Partially Proficient) in 2008 and 2010. These performance levels were recommended by a panel of educators and other stakeholders who used detailed descriptions of what students should know and be able to do at each level, along with student performance data, to reach their conclusions. The Michigan State Board of Education approved the final cut scores and performance ranges. The MME is administered over three days in which students take the complete ACT plus Writing, the complete Work Keys assessment, and content area assessments containing Michigan-developed items that reflect high school content expectations. The MME scale score is computed using selected items from each piece of the assessment with the criteria for inclusion being appropriate alignment to content expectations. The percentages are based on the numbers of 11th-graders whose math test scores were included in the report.
Source: Center for Educational Performance Information (http://www.mich.gov/cepi)

ECONOMIC CONDITIONS

Live Births
The single year counts for 2009 are displayed.
Source: Michigan Department of Community Health, Vital Records and Health Data Development Section

Median Household Income (2009)
The median represents the midpoint of all household income amounts.

Total Population
The total population is displayed for 2010.
Source: U.S. Census Bureau, State and County Population Estimates

Unemployment
The average annual unemployment numbers are calculated from the monthly unemployment numbers. They are displayed for 2010. The rates are based on the total work force. This rate has not been seasonally adjusted.