Early childhood Minnesota

Indicators and strategies for Minnesota's early childhood system, a joint report of Minnesota Build and Minnesota Early Childhood Comprehensive Systems

DECEMBER 2008

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Introduction

This *Indicators and strategies for Minnesota's early childhood system* report is the result of a collaboration on early childhood system-building between the Minnesota Early Childhood Comprehensive System (MECCS) grant administered through the Minnesota Department of Health (MDH), and the Build grant administered through Ready 4 K. Both MECCS and Build have adopted an early childhood systems framework developed by the National Early Childhood Systems Workgroup, which describes an early childhood system as being a "system of sub-systems" with four critical, interconnected and interdependent ovals that touch the lives of children and families – early learning, health and mental health, family support, and special needs/early intervention. An essential component of an early childhood system is accountability, how states monitor performance and use outcomes and indicators to measure success across those four sub-systems.

In 2006 Ready 4 K convened a statewide Building Connections Retreat with both state and community early childhood stakeholders. One of the retreat recommendations was for Minnesota to develop clear measurable goals and indicators at the state and the community level to track children's progress, evaluate systems responses and community responses. At about the same time, Project Thrive from the National Center for Children in Poverty (NCCP) provided guidance to ECCS states about performance monitoring and indicators/ results-based accountability and presented states with a framework for outcomes and indicators.

The timely intersection of these two proceedings gave impetus to the convening of an outcomes and indicators workgroup, which met throughout the summer and fall of 2007, and in November of 2007 presented a draft of the work to the Statewide Build Advisory Committee. The outcomes cross the four sub-systems, or ovals, and data has been collected for both child and family indicators of health and well-being, and system indicators of quality and access. This report is the result of the work of that workgroup.

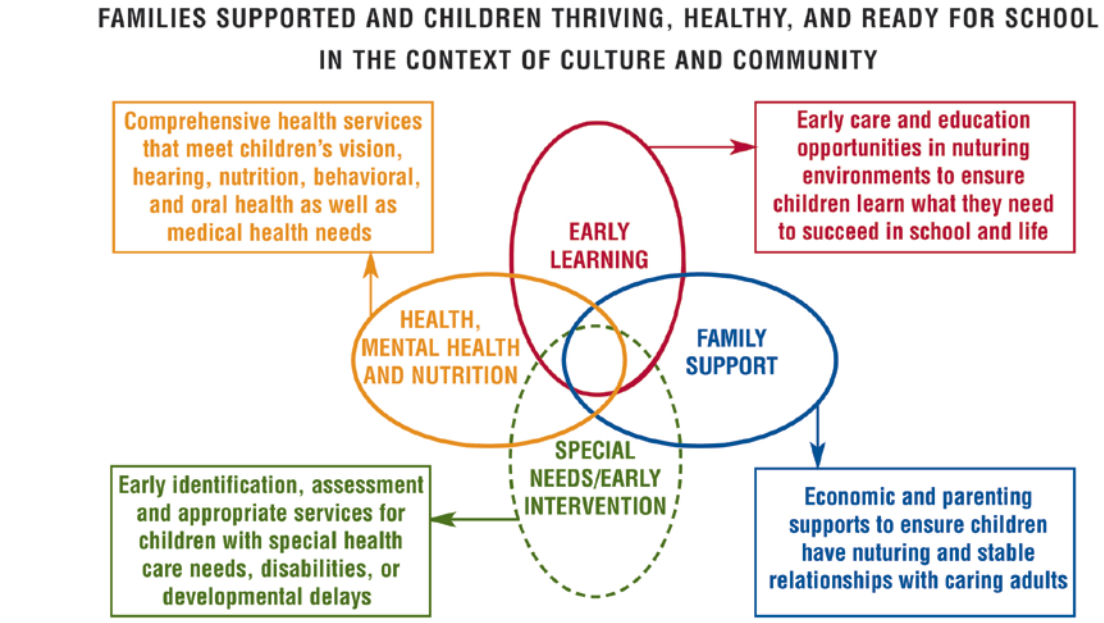
Background

Funded through the Health Resources and Services Administration of the U.S. Department of Health and Human Services, the purpose of the State Maternal and Child Health Early Childhood Comprehensive Systems (ECCS) Grant Initiative is to assist states and territories in their efforts to build and implement Statewide Early Childhood Comprehensive Systems that support families and communities in their development of children who are healthy and ready to learn at school entry. The national Build Initiative is a smaller initiative, funded by the National Early Childhood Funders Coalition that has funded five states,

Minnesota one of them, to advance early childhood system-building that can help address the fragmented, under-resourced system of early education.

Ready 4 K, as the lead agency for Build in Minnesota, has convened stakeholders from state departments, early childhood advocates, community advocacy and parent organizations, businesses, legislators, and foundations to advance early childhood systems building. In 2007, Ready 4 K's Build Initiative began to align their system-building work with the work of the Minnesota Early Childhood Comprehensive Systems grant. Considerable hours have been spent meeting with stakeholders to gain consensus for this new early childhood system framework, both with the Build Statewide Advisory Committee and the MECCS Leadership team. Below is a visual depiction of the early childhood system.

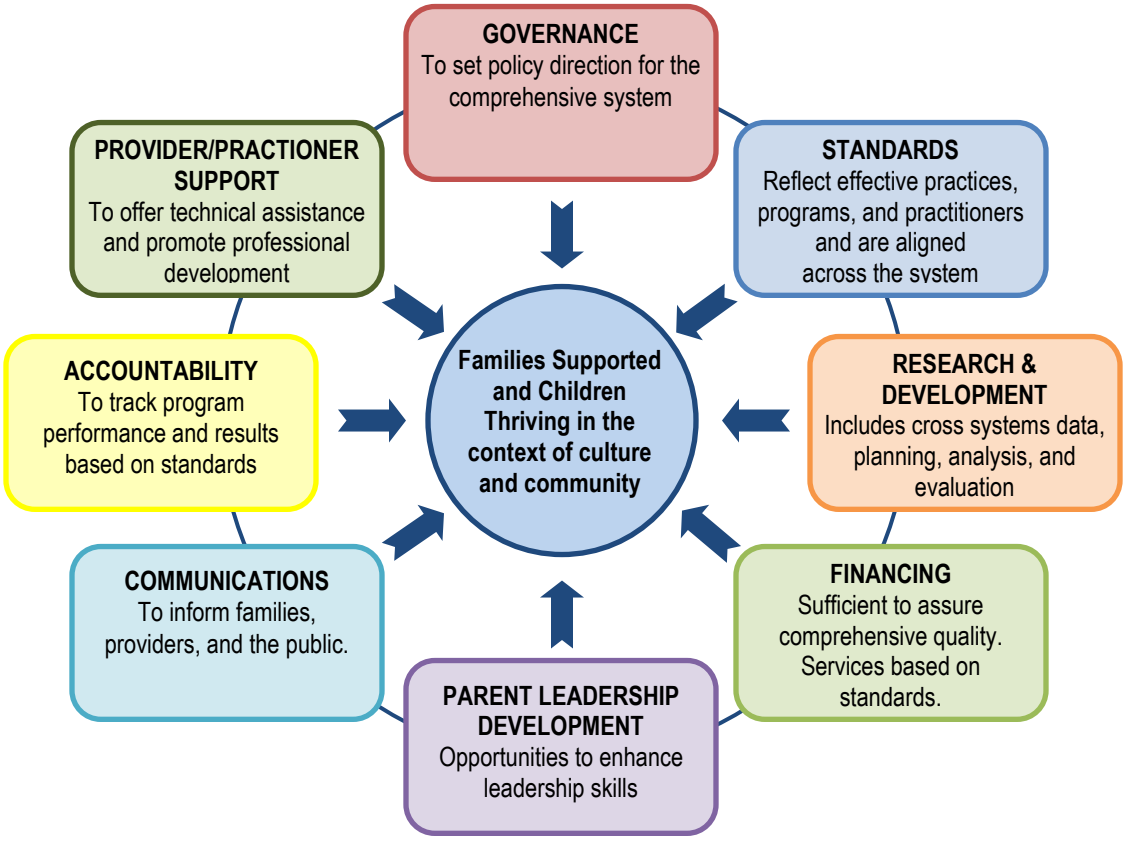
1. State early childhood system model



National Early Childhood Systems Working Groups

The National Early Childhood Systems Workgroup also identified core components that make up an early childhood system that ensure the financing, quality, and availability of services for children and families. These core components can also be used to assess the strengths and the gaps of our current system. Below is a visual depiction of the core components of an early childhood system.

2. Core components of an early childhood system



Adapted from Early Childhood Systems Working Group, 5/13/08

Children age 5 and younger in Minnesota

Approximately 415,183 young children age 5 and younger reside in Minnesota, representing 8 percent of the total population (see Figure 3). Fifteen percent live in households with incomes at or below poverty; 18 percent in households at 101 to 200 percent of poverty; and 67 percent in households above 200 percent of poverty (see Figure 4). Twenty-two percent are young children of color; 78 percent are white, and 9 percent identify as Hispanic or Latino ethnicity (see Figure 5).

3. Age distribution of Minnesota population

Age	Number	Percent
All ages	5,167,101	100%
Under 18 years	1,251,372	24.2%
Under 6 years	415,183	8.0%
Less than 1 year	69,106	1.3%
1	67,071	1.3%
2	72,425	1.4%
3	72,948	1.4%
4	66,477	1.3%
5	67,156	1.3%

Source: *2006 American Community Survey. Estimates subject to sampling error. Please refer to source documentation for more information: http://factfinder.census.gov/.*

4. Young children under age 6 by income

Income of child's household as a percent of poverty	Number	Percent of all young children
0% to 100%	63,125	15.3%
101% to 200%	73,692	17.9%
201% to 300%	74,056	18.0%
301% to 400%	67,882	16.5%
401% to 500%	40,575	9.9%
Over 500%	92,161	22.4%

Source: *2006 American Community Survey. Estimates subject to sampling error. Please refer to source documentation for more information: http://factfinder.census.gov/.*

5. Young children under age 6 by race/ethnicity

Race or ethnicity	Number	Percent of all young children
American Indian alone	4,097	1.0%
American Indian and Alaska Native	515	0.1%
Asian alone	17,004	4.1%
Black or African American alone	35,524	8.6%
White alone	325,034	78.3%
Some other race alone	12,919	3.1%
Two or more major race groups	20,090	4.8%
Hispanic or Latino ethnicity (any race)	36,011	8.7%

Source: *2006 American Community Survey. Estimates subject to sampling error. Please refer to source documentation for more information: http://factfinder.census.gov/.*

Report overview

The Minnesota Early Childhood Comprehensive Systems (MECCS) initiative of Minnesota Department of Health and the Build Initiative of Ready 4 K sponsored this report. It complements their combined effort to develop a comprehensive early childhood system that will connect Minnesota children and families with culturally and linguistically appropriate information, services, and supports that will put all children on the path to success.

As part of that effort, an outcomes and indicators working group has identified 22 indicators of child and family health and well-being and system indicators of quality and access (see Figure 7). The indicators represent four larger, overlapping themes: early learning, family support, health/mental health, and special needs/early intervention.

Methods, strengths, and limitations

This report compiles the most recently available information for each indicator from a wide variety of sources.[1] Each indicator is accompanied by a statewide snapshot, and when possible, measures are disaggregated into groups to illustrate how well-being and supports vary by income, race/ethnicity, and locality. Several indicators required statistical analysis of available data to produce appropriate measures (e.g., estimating the number of low-income families with young children).

[1] Children's Defense Fund Minnesota uses a similar approach to publish its annual child indicators report, *KIDS COUNT Data Book*, which focuses on children under age 18. (See http://www.cdf-mn.org/kidscount.htm for more information.) This report differs by focusing on young children under age 6 and a different set of indicators.

Compiling disorganized information into one report, focusing on the status of young children, and using available data are strengths of this report. Mirroring the process by which multiple, intertwined factors influence children's healthy development, this report pulls measures of those factors together in one place. The measures provide baseline information for strategic planning and improving conditions for young children – one of society's most vulnerable groups and cost-effective investments. Relying on available information as this report does, rather than collecting new data, conserves resources, promotes collaboration, and allows measures to be repeated in the future to gauge improvement.

On the other hand, relying on available information provides an incomplete picture of the early childhood system. Some state agencies and other data proprietors possess limited time or expertise for sharing their data. In other cases, only proxies or minimally detailed measures are available. In those cases, Ready 4 K, MECCS, and other stakeholders should take steps to ensure that detailed data for each indicator will be available in the future. This could be accomplished in part by encouraging data proprietors, such as state agencies, to adopt the standard set forth in this report (i.e., to detail outcomes and services for children under age six on a statewide level and by income, race/ethnicity, and locality).

Emerging indicators

The working group has also developed a set of emerging indicators for which data are not currently available but will be pursued in the future: home visiting for at-risk families; strengths of family, friend, and ne ighbor care; father engagement; family member incarceration; grandparents raising children; Earned Income Tax Credit claims; maternal depression; prenatal exposure to alcohol; children identified at screening who do not qualify for early childhood special education; language and literacy; and English as a Second Language learners (ELL).

Indicators and strategies framework

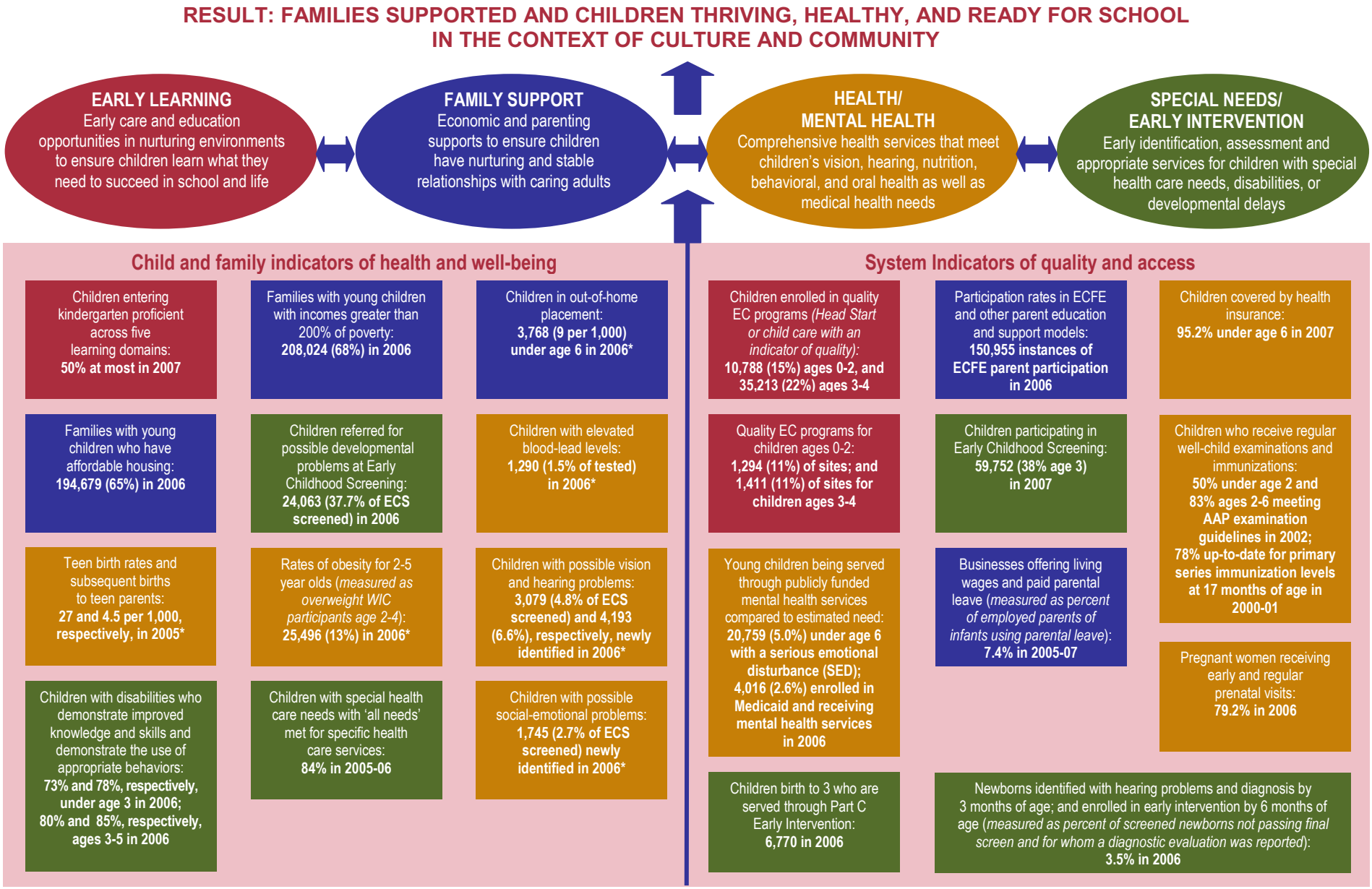
Figure 6 shows the indicators framework and summarizes statewide facts.[2] The outcomes and indicators workgroup believes that these indicators reflect the degree to which families are supported and young children are thriving. Additionally, they recognize that success depends on four intertwined areas: early learning, family support, health/mental health, and special needs/early intervention. As conditions improve, most indicator measures in Figure 3 are expected to increase; the six measures marked with asterisks will decrease as conditions improve. As access to Early Childhood Screening improves, it is expected

[2] Minnesota's framework was adapted from the version proposed by Project THRIVE at the National Center for Children in Poverty: http://www.nccp.org/projects/files/event_download_71.pdf.

that more children will be referred for possible developmental problems; after full access is achieved the indicator measure is expected to decrease, representing improved health.

Minnesota Build has identified a set of key strategies for improving outcomes for young children (see Figure 7). The strategies correspond with the results-based accountability framework and were developed out of a review of best practices. The strategies are detailed below in the section "Recommendations for strategies to improve child and family well-being and early childhood systems in Minnesota."

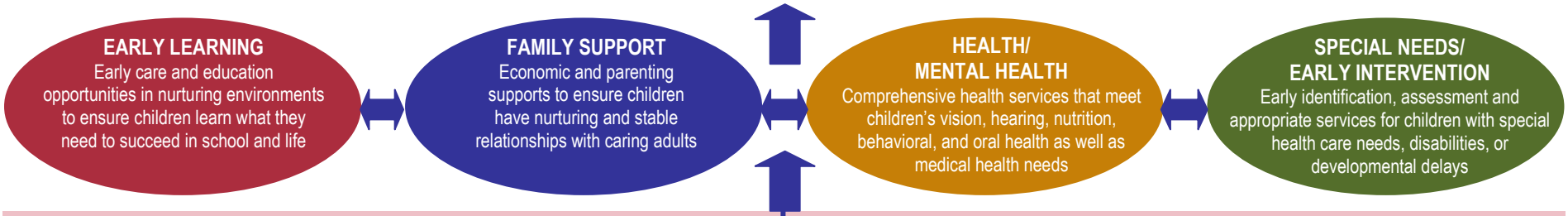
6. Results-based accountability framework for an early childhood system, with statewide measures



* *Measures expected to decrease as conditions improve; measures without asterisks are expected to increase as conditions improve.*

7. Results-based accountability framework for an early childhood system, with strategies for improving outcomes

RESULT: FAMILIES SUPPORTED AND CHILDREN THRIVING, HEALTHY, AND READY FOR SCHOOL IN THE CONTEXT OF CULTURE AND COMMUNITY



Strategies to improve child and family well-being

- Assess school readiness of children at kindergarten entrance.
- Provide high quality early learning experiences for low-income children.
- Implement early literacy strategies in ECE settings and homes, and expand family literacy programs.
- Develop specific supports for family, friend, and neighbor (FFN) providers.

- Provide Adult Basic Education (ABE) and English Language Learners classes for parents.
- Provide income supports such as WIC, health insurance, food stamps, and child care subsidies to low-income families, as well as programs that enhance money management and asset building.
- Connect at-risk new parents with research-based home visiting programs.
- Provide housing subsidies and promote homeownership for low-income families.

- Require lead inspections and subsidize abatements for housing in low-income communities, and increase blood-lead screening and education throughout the state.
- Expand after-school adult-supervised programs for youth and teens.
- Promote healthy lifestyles behaviors for all families and early identification of children at-risk.
- Expand the use of hearing screening instruments for children from birth to age three and support funding for research on vision screening instruments.
- Increase use of social-emotional developmental screening tools across ECE and health settings.

- Increase the use of standardized developmental screenings in primary care, and integrate behavioral health programs into primary care.
- Expand the medical home initiative, and co-locate services for families who have children with special health needs.
- Increase support for programs available to children with special health care needs within their home or neighborhood.

Strategies to improve quality and access

- Implement a statewide quality rating and improvement system for ECE programs.
- Provide direct grants to programs to assist them in meeting quality standards.
- Expand access for low-income children to attend quality early care and education programs through portable subsidies to parents and direct grants to programs
- Link child care subsidy reimbursement with quality.
- Offer accreditation consultation to center-based providers and mentoring to family child care.

- Provide families with early childhood parenting education.
- Increase the number of families receiving Early Head Start and Head Start.
- Encourage employers to offer paid parental leave.
- Build public awareness of living wage needed for a family's basic needs to be met.
- Provide cross-training to child welfare staff, ECE staff, foster care parents, and others providing services to at-risk families regarding the Strengthening Families five protective factors.

- Expand funding for evidence-based home visiting programs.
- Increase the number of qualified early childhood mental health clinicians/consultants.
- Provide health insurance for low-income children and families and promote use of existing programs through public awareness campaigns and media outreach.
- Promote neighborhood-based clinics for well-child, primary care, and immunizations.
- Expand outreach services to pregnant women for prenatal care services.

- Increase outreach staff and public awareness for Early Childhood Screening at age three and four.
- Expand funding to support professional development and parent education on developmental screening instruments.

How to use the indicators presented in this report

In recent years states and communities have looked for ways to assess the effectiveness of early childhood programs funded through local, state or federal dollars. Many communities have adopted results-based accountability approaches that use indicators of child and family well-being.[3]

In 2004 the David and Lucille Packard Foundation, the Kauffman Foundation and the Ford Foundation funded a 17 state partnership to develop school readiness indicators. The final report in 2005 identified goals of outcomes and indicators work, criteria for selecting indicators, and possible uses for indicators.

> "The regular tracking of school readiness indicators enables policymakers and community leaders to identify areas most in need of intervention, track the results of investments, and monitor trends over time."[4]

It is the intent of both Build and MECCS that this report be used throughout Minnesota, both at the state and community level, to give benchmark data on the well-being of children and families as well as data on system levels of quality and access, and to give information on effective strategies that can move the indicators, and improve services and outcomes for children and families. The indicators can be tracked regularly at the state and local levels, and can be used to stimulate policy, program and other actions to improve the ability of all children to be ready for success in school.

The rationale of the outcomes and indicators workgroup for developing and using outcomes and indicators was to:

- Focus resources, strategies, and accountability at the local level to increase family and child well-being and children's school readiness;
- Help coordinate activities across state departments, hold government accountable, and produce system changes that will improve outcomes for children and families; and
- Inform public policies about strategies that will achieve core indicators and make the case for increased investments.

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[3] Friedman, M. (2005). *Trying hard is not good enough: How to produce measurable improvements for customers and communities.* Victoria, BC: Trafford Publishing.

[4] Rhode Island KIDS COUNT. (2005). *Getting ready: Findings from the National School Readiness Indicators Initiative, a 17 state partnership*. Providence, RI: Author.

The workgroup followed two main criteria for selecting the school readiness indicators:

- A change in one or more of the core indicators will influence children's school readiness, and
- Each of the core indicators is currently measurable using state and local data.

The school readiness indicators in this report have several possible uses for both state and local communities:

- Track trends over time
- Measure progress towards improving child outcomes
- Improve programs for children and families
- Inform state and local planning and policymaking
- Monitor the impact of investments and policy choices
- Improve data quality and availability of current and emerging indicators
- Expose and eliminate disparities by income and race/ethnicity

PART I: EARLY CHILDHOOD INDICATORS

Child and family indicators of health and well-being

Children entering kindergarten proficient across five learning domains

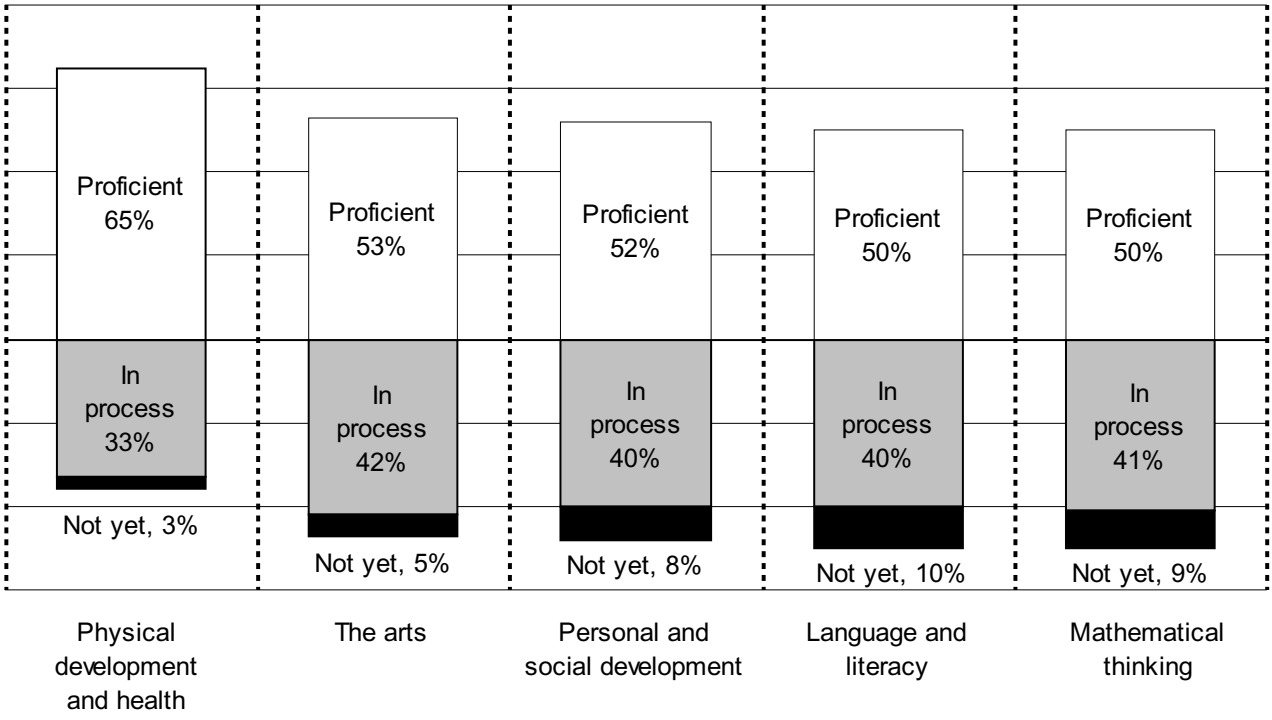
The Minnesota Department of Education (MDE) tracks school readiness by assessing kindergartners in a random sample of schools.[5] The Minnesota Work Sampling System Kindergarten Entry Developmental Checklist®2 was developed by MDE for this purpose. Shortly after kindergarten entry, teachers use the checklist to rate students' performance on a series of indicators that compose five domains: personal and social development; language and literacy; mathematical thinking; the arts; and physical development and health. Indicators and domains receive ratings of "not yet," "in process," or "proficient."

At least 10 percent of kindergartners show a clear need for better pre-kindergarten preparation, remedial assistance in school, and are at risk of remaining behind their peers.[6] In each of the school readiness domains, about 30 to 40 percent of kindergartners are in process towards proficiency, inconsistently showing signs of proficiency; and half or more exhibit full readiness to succeed in school.

[5] Data should be interpreted with caution because voluntary participation by the schools may lead to nonresponse bias. Estimates are subject to sampling error. Please refer to source documentation for more information.

[6] The number of kindergartners not yet ready for school is probably higher than 10 percent, depending on the proportion of children who received "not yet" ratings on at least one domain. MDE publishes school readiness results for domains, not individual kindergartners. Ten percent is largest percentage of kindergartners not yet ready for school within a particular domain, specifically the language and literacy domain. The percent of children receiving a rating of "not yet" in *any* domain would better indicate the need for pre-kindergarten opportunities and school-based remedial assistance.

8. Statewide school readiness ratings by domain, 2007



Variation by demographic factors

- Family income positively influences all school readiness domains.
- English speaking positively influences math and literacy.
- Parent education positively influences literacy.
- Kindergartners of color and white kindergartners exhibit similar readiness in all domains.

Kindergartners from higher income families are more likely to enter school ready to succeed. For example, the odds of being rated as "in process" or "proficient" in the mathematical thinking domain for a kindergartner from a higher income family (at or above 250% of the poverty level) is about three times the odds of a kindergartner in poverty. The Minnesota Department of Education (MDE) found that income positively influences school readiness in the other four domains as well.

Primary home language, parent education, and race/ethnicity were simultaneously analyzed by MDE in 2007 as factors thought to influence school readiness. Primary home language positively influences school readiness in mathematical thinking and language and literacy, but it does not significantly predict readiness in other domains.

Parent education has a positive influence on language and literacy, but not significantly on the other domains.

Racial/ethnic identity does not significantly influence school readiness in any of the domains after adjusting for differences in income, language, and parental education. This suggests that narrowing minority-white achievement gaps in elementary school depends in part on helping families with young children overcome economic, linguistic, and educational disadvantages.

Variation by location

- Higher percentages of Minneapolis and St. Paul kindergartners receive ratings of "not yet," suggesting a greater need for pre-kindergarten opportunities in the Twin Cities. However, these results are strongly related to the demographic factors, and the 2007 report recommends further study to assess how results for students in the Twin Cities would compare to results of students with similar demographics in other parts of the state.

Source and further information

- *Minnesota School Readiness Study: Developmental Assessment at Kindergarten Entrance, Fall 2007*
  http://education.state.mn.us/MDE/Learning_Support/Early_Learning_Services/

Families with young children with incomes greater than 200% of poverty

Family income makes a difference in the lives of young children, positively influencing school readiness, health, and other indicators of well-being. In Minnesota, 68 percent of families with children under age 6 earn incomes that offer some economic stability; while the other 32 percent of families and their young children face the compounding challenges of low incomes. For perspective, the poverty level for a family of three in 2008 is $17,600, and 200 percent of that amount is $35,200.

Statewide facts[7]

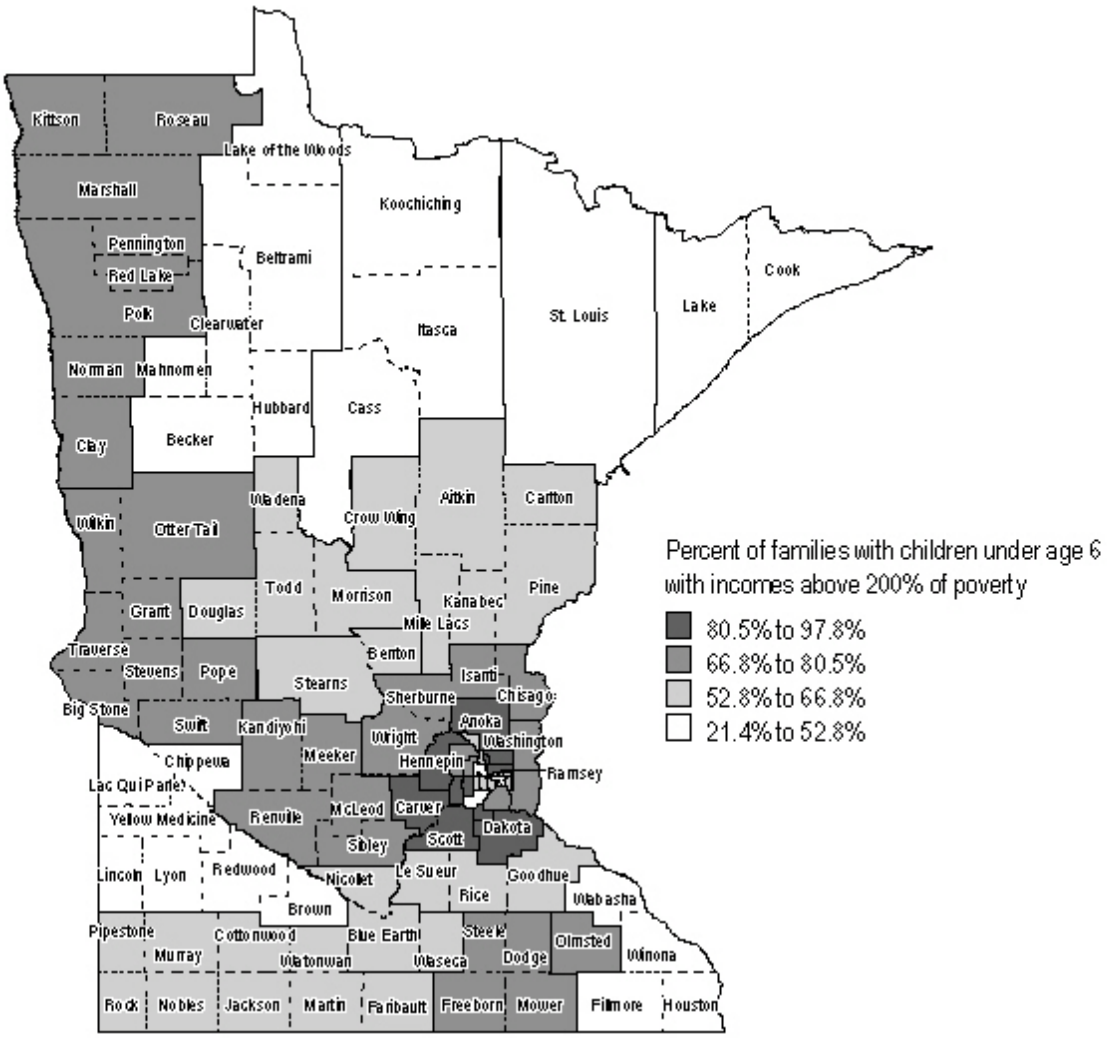
- Number of families with children: 668,935
- Number of families with one or more children under age 6: 303,883 (45% of all families with children)
- Number of low-income (at or below 200% of poverty) families with children under age 6: 95,859 (32% of all families with children under age 6)
- Number of higher income families (above 200%of poverty) with children under age 6: 208,024 (68% of all families with children under age 6)

9. Higher income families with children under age 6 by race/ethnicity

Race/ethnicity of householder	Percent within group
American Indian	37%
Asian	68%
Black or African American	29%
White	74%
Other race	23%
Two or more major race groups	39%
Hispanic or Latino ethnicity (any race)	28%

[7] Estimates subject to sampling error. Please refer to source documentation for more information.

10. Higher income families with children under age 6 by Census area



Note: *Shaded areas represent public use microdata areas. Dotted lines represent county boundaries. Census areas are separated into four similarly sized groups. See Appendix A1 for the data table.*

Sources and further information

- U.S. Census Bureau's 2006 American Community Survey
  http://factfinder.census.gov/
- U.S. Department of Health and Human Services' Poverty Guidelines
  http://aspe.hhs.gov/poverty/

Families with children who have affordable housing

When families spend less of their income on housing costs, they experience greater overall stability. Affordable housing enables families to purchase goods and services that support the healthy development of children, such as nutritious food, health care, and early education experiences. Additionally, when affordable housing is located in proximity to work and commerce, parents spend less time commuting and more time with their children.

A common measure of affordable housing is the percent of household income spent on housing costs, with 30 percent used as a cutoff point. A household spending 30 percent or less of its income on housing costs is considered to have affordable housing; while a household spending more than 30 percent is considered housing-burdened.

Statewide facts[8]

- Households with children under age 6 who have affordable housing: 194,679 (65%)
- Households with children under age 6 who are burdened by housing costs: 104,803 (35%)

Affordable housing by income

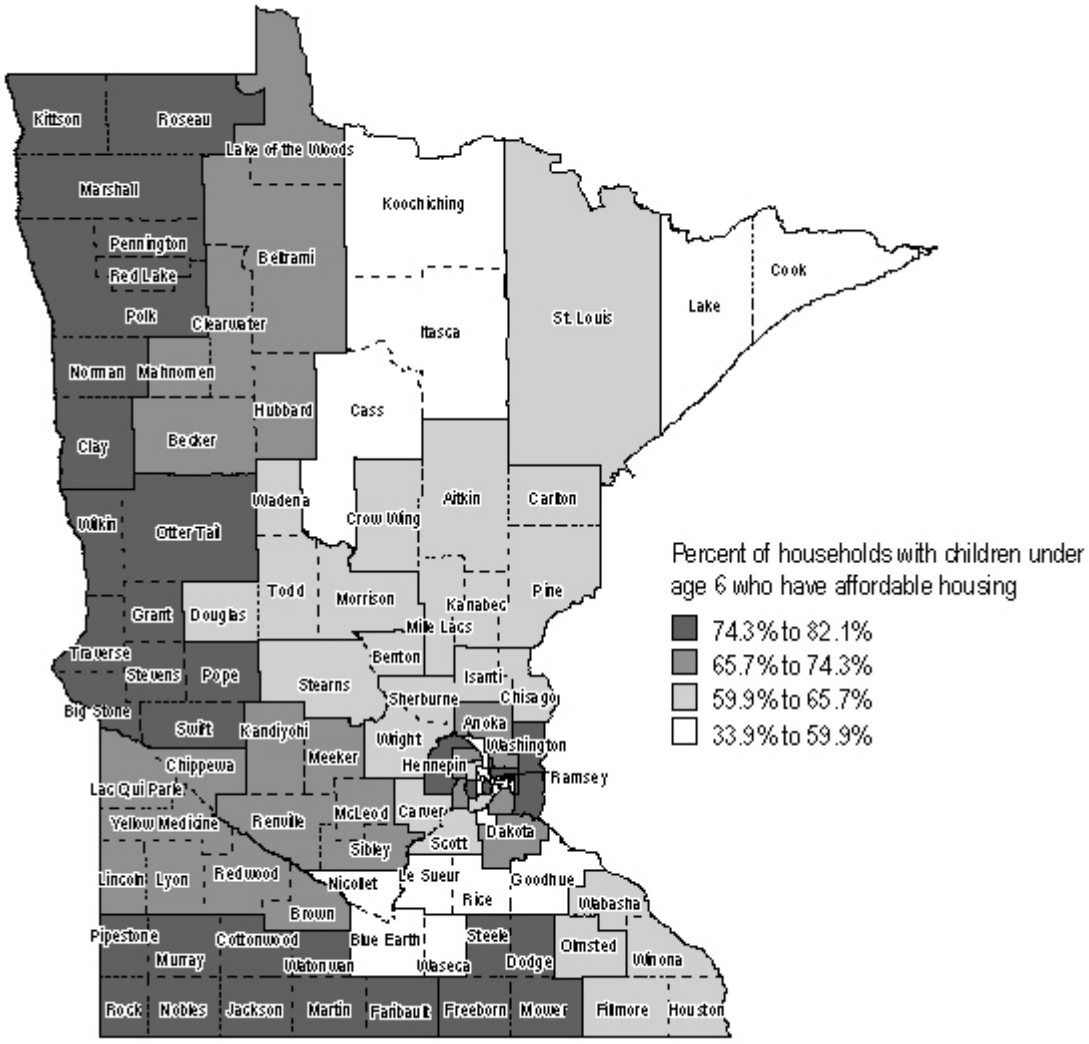
- Low-income households (at or below 200% of poverty) with children under age 6 who have affordable housing: 29,617 (32%; 68% are burdened)
- Higher income households (earning more than 200% of poverty) with children under age 6 who have affordable housing: 165,062 (80%; 20% are burdened)

11. Affordable housing by race/ethnicity

Race/ethnicity of householder	Percent of households with children under age 6 who have affordable housing
American Indian	57%
Asian	64%
Black or African American	43%
White	68%
Other race	44%
Two or more races	40%
Hispanic or Latino ethnicity (any race)	44%

[8] Estimates subject to sampling error. Please refer to source documentation for more information.

12. Affordable housing by Census area



Note: *Shaded areas represent public use microdata areas. Dotted lines represent county boundaries. Census areas are separated into four similarly sized groups. See Appendix A1 for the data table.*

Source and further information

- U.S. Census Bureau's 2006 American Community Survey
  http://factfinder.census.gov/

Children in out-of-home placement

In 2006, 3,768 children under age 6 were removed from their homes on a temporary or permanent basis by the State of Minnesota to protect them from unsafe conditions at home and/or to deliver behavior health services. Young children experience out-of-home placement at a slightly lower rate than other ages, but their numbers have steadily risen since 2000 while other age groups' have fallen.

DHS reports that children in lower-income families face higher risks of neglect due to housing and financial problems, but detailed information about the influence of income on placement is not available.

Statewide facts

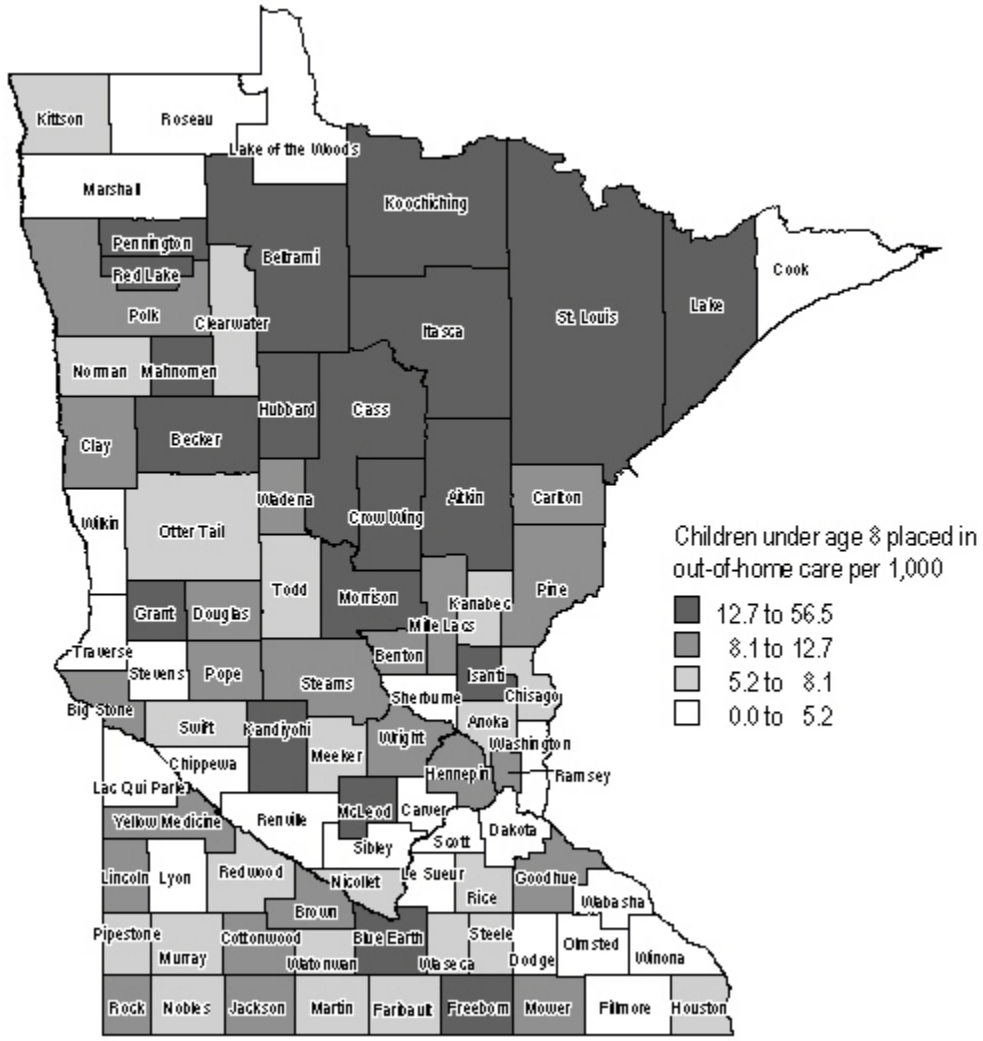
- Children under age 18 placed in out-of home care in 2006: 13,180 (11 per 1,000)
- Children under age 6 placed in out-of home care in 2006: 3,768 (9 per 1,000)
- Children of color are placed in out-of-home care at disproportionately higher rates than white children, even after controlling for income differences.

13. Out-of-home placement by race/ethnicity (under age 22)[9]

Race/ethnicity	Number of children in placement	Placement rate per 1,000 in population
American Indian	1,718	7.5
Asian	312	0.5
Black or African American	3,058	4.1
Pacific Islander	5	0.8
White	8,009	0.6
Other race	454	15.5
Two or more races	1,132	2.7
Hispanic or Latino ethnicity (any race)	1,207	1.8

[9] DHS' Child Safety and Permanency Division defines children as 0-21 year-olds.

14. Out-of-home placement by county



Note: *Counties are separated into four similarly sized groups. See Appendix A2 for the data table.*

Source and further information

- *Minnesota's Child Welfare Report*
  http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_003713

- *Investigating Racial Disparity in Minnesota's Child Welfare System*
  http://www.dhs.state.mn.us/main/groups/children/documents/pub/dhs_id_010713.pdf

Children with elevated blood-lead levels

Young children and developing fetuses are especially vulnerable to the toxic effects of lead. Bodily absorption of lead causes nerve damage, leading to learning disabilities and physical impairment. Growing bodies, nutritional needs, mouthing behavior, spending time on the floor, and the ability of lead to pass easily through the placenta – these naturally occurring conditions increase the risk of lead exposure. Lead exposure is further exacerbated by societal conditions associated with poverty, such as poor nutrition, residing in older homes with chipping lead paint, and proximity to industrially contaminated soil.

Available data represent children tested in a purposeful manner, not populations. Therefore, high rates of elevated blood-lead levels may indicate a need for more testing and not necessarily high rates in the population.

Statewide facts

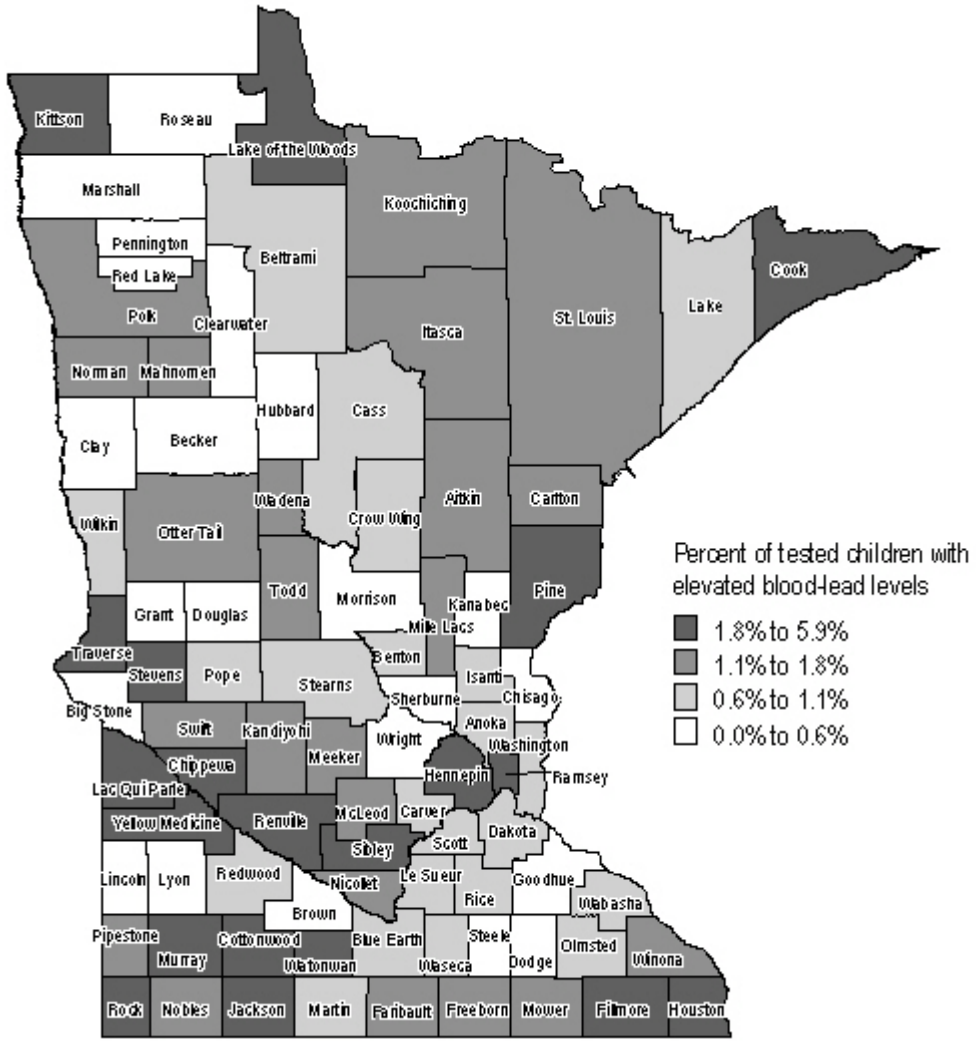
- Children under age 6 tested for blood-lead levels in 2006: 85,746 (22%)
- Tested children who were found to have elevated blood-lead levels (10 µg/dL or greater): 1,290 (1.5% of tested children)

Elevated blood-lead levels by Medicaid enrollment and refugee status

Information on blood-lead levels among different income and racial/ethnic groups is not available. However, MDH reports blood-lead levels among Medicaid-enrolled children and refugee groups.

- Percent of tested Medicaid-enrolled children under age 6 with elevated blood-lead levels: 2.1%
- Percent of tested children under age 6 not enrolled in Medicaid with elevated blood-lead levels: 1.0%
- Percent of tested refugee children under age 6 with elevated blood-lead levels: 6.5%

15. Elevated blood-lead levels by county



Note: *Counties are separated into four similarly sized groups. See Appendix A2 for the data table.*

Source and further information

- *2006 Blood-lead Surveillance Report*
  http://www.health.state.mn.us/divs/eh/lead/reports/

Teen birth rates and subsequent births to teen parents

Delaying pregnancy until adulthood contributes to the health and prosperity of parents and children. Children born to teen mothers are more likely to exhibit low birthweight and other adverse health conditions. When teens become parents, the demands of caring for young children compete with parents' educational and career aspirations and place stress on the family.

Minnesota's low teen birth rate[10] places it among the top 10 states, but American Indian, Hispanic/Latina, and other minority teenage girls bear children at disproportionately high rates. The rate of births to American Indian teenagers is the highest among racial/ethnic groups (108 per 1,000), followed closely by Hispanic/Latina teenagers (102 per 1,000). The teen birth rate among American Indian and Hispanic/Latina teenagers is about 6 times the rate of white teenagers, indicating a large disparity.

Statewide facts

- Births to females age 15-19 years old: 4,780
- Teen birth rate: 27 per 1,000
- Rate of subsequent teen births: 4.5 per 1,000

Teen birth rates by age group

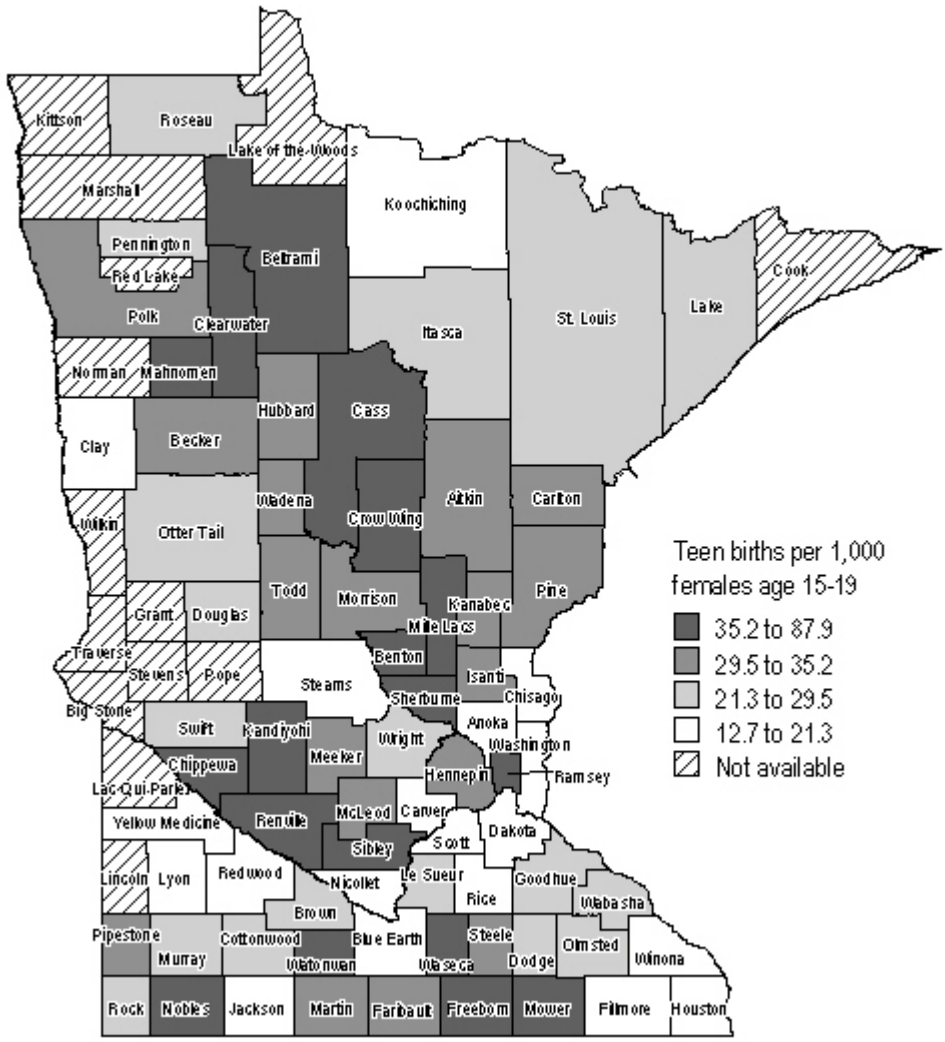
- Younger teen birth rate: 13 per 1,000 females age 15-17
- Older teen birth rate: 46 per 1,000 females age 18-19

16. Teen birth rates by race/ethnicity

	Teen birth rate per 1,000 females age 15-19
American Indian	108
Asian or Pacific Islander	51
Black or African American	67
Hispanic or Latina ethnicity	102
White	17

[10] Birth statistics represent the year 2005 unless stated otherwise.

17. Teen birth rates by county: 2004-06



Note: *Counties are separated into four similarly sized groups. See Appendix A2 for the data table.*

Sources and further information

- *Minnesota Vital Statistics State and County Trends 2002-2006*
  http://www.health.state.mn.us/divs/chs/Trends/index.html

- The National Campaign to Prevent Teen and Unplanned Pregnancy, Minnesota Profile
  http://www.thenationalcampaign.org/state-data/state-profile.aspx?state=minnesota

- Minnesota Organization on Adolescent Pregnancy, Prevention and Parenting
  http://www.moappp.org/

Rates of obesity for 2-4 year olds

> "The proportion of children classified as overweight or obese is growing at an alarming rate in the United States and in Minnesota. Prevalence of obesity among children and adolescents in the United States quadrupled among 6-11 year-olds and more than tripled among 12-19 year-olds between 1971-74 and 1999-2002 according to the National Health and Nutrition Examination Survey (NHANES)."
>
> *-Minnesota Task Force on Childhood Obesity*

Childhood obesity is a modern epidemic exacerbated by physical inactivity, built environments, market forces, and agricultural policies. Rates of obesity among children are high and rising, accompanied by adverse health outcomes, including lung and heart disease, gastrointestinal disorders, skeletal abnormalities, and psychosocial issues.

The Minnesota Department of Health monitors overweight prevalence among low income children who participate in the Women, Infants & Children (WIC) Program. Children are classified as overweight if they fall in the top 5 percentage-adjusted body weights. Public health practitioners generally avoid classifying young children as obese because rapid growth makes the classification unreliable. Minnesota does not have a statewide monitoring system for tracking overweight and obesity prevalence in the child population.

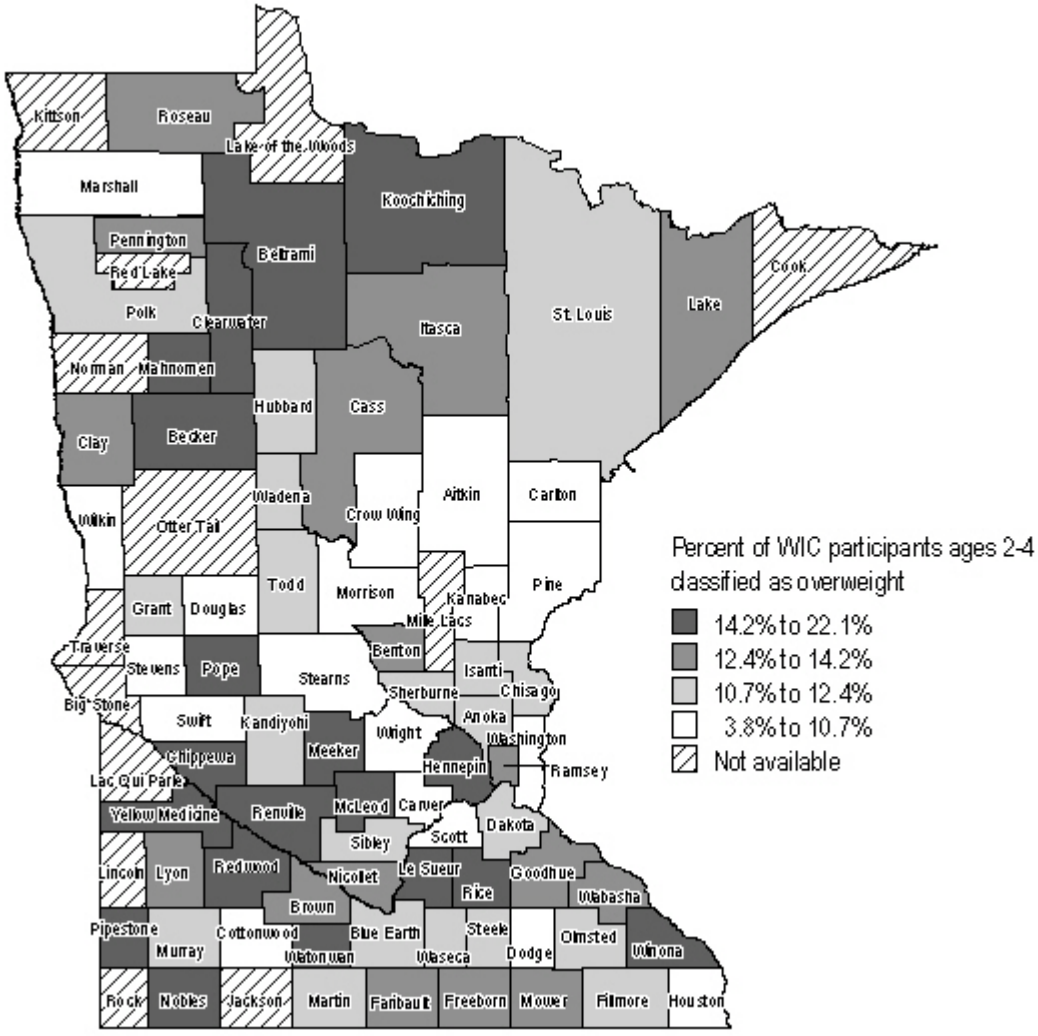
Statewide facts

- Number of WIC participants age 2-4 who are overweight (≥ 95th percentile): 7,547 (13%)
- Number at risk of overweight (≥ 85th percentile up to 95th): 9,505 (16%)

18. Overweight WIC participants by race/ethnicity

Race/ethnicity	Percent within each group classified as overweight
American Indian	25%
Asian or Pacific Islander	16%
Black or African American	13%
Hispanic or Latino ethnicity	18%
White	10%
Other	5%
Two or more races	13%

19. Overweight WIC participants by county



Note: *Counties are separated into four similarly sized groups. See Appendix A2 for the data table.*

Sources and further information

- Pediatric Nutrition Surveillance data available from the Minnesota Department of Health's Women, Infants & Children (WIC) Program
  http://www.health.state.mn.us/divs/fh/wic/

- *Recommendations to Prevent and Reduce Childhood Obesity in Minnesota*
  http://www.health.state.mn.us/divs/hpcd/chp/obesity/

- *The Future of Children*, Childhood Obesity, Spring 2006
  http://www.futureofchildren.org/pubs-info2825/pubs-info_show.htm?doc_id=349724

Children with possible problems identified and referred through early childhood screening

> "The purpose of Early Childhood Screening is to assist parents and the community to improve the educational readiness and health of all young children in Minnesota through the early detection of children's health, development and other factors that may interfere with a child's learning, growth and development. (M.S.121A.16 – 121A.17; 121A.19)"
>
> *-Minnesota Department of Education*

Potential developmental problems identified through MDE's Early Childhood Screening (ECS) program and subsequent referrals give some indication of health and well-being of Minnesota's young children. However, developmental concerns and referrals do not confirm developmental problems, and ECS does not reach every child. In FY 2006, 60,800 children were screened through ECS; 22,456 new developmental problems were identified (more than one per child in some instances), resulting in 24,063 referrals to health and educational services for assessment/evaluation.

Statewide facts

Children with possible vision and hearing problems

- Children with a potential vision problem newly identified through ECS: 3,079
- Children with a potential hearing problem newly identified through ECS: 4,193

Children with possible social-emotional problems

- Children with a potential social-emotional problem newly identified through ECS: 1,745

Children referred for possible developmental problems at Early Childhood Screening

- Referrals to health and educational services for assessment/evaluation: 24,063

Source and further information

- 2006 *Early Childhood Screening Program and Participant Data* http://www.education.state.mn.us/mdeprod/groups/EarlyLearning/documents/Report/030638.pdf

Children with special health care needs with 'all needs' met for specific health care services

An estimated 36,121 (9%) children under age 6 in Minnesota exhibit a special health care need. Conditions that require special health care include asthma, diabetes, sickle cell disease, autism, Down syndrome, and others. Special health care needs can affect a child's activities and cause them to miss school. Additionally, they can result in high medical expenses and financial problems for the family. Access to health care services and equipment are vital for livelihood and health maintenance, but some children have needs that go unmet.

Statewide facts[11]

- Percent of children under age 6 with special health care needs with all needs met for specific health care services: 84%
- Percent of children under age 18 with special health care needs with all needs met for specific health care services: 87%

All needs met by income

- Percent of children under age 18 with special health care needs in low-income (less than 200% of poverty) families with all needs met: 73%
- Percent of children under age 18 with special health care needs in higher income (greater than or equal to 200% of poverty) families with all needs met: 92%

20. All needs met by race/ethnicity

	Percent of children under age 18 with special health care needs within each group with all needs met
Black or African American	78%
White	89%
More than one race	80%
Other race	86%
Hispanic or Latino ethnicity (any race)	81%

Source and further information

- 2005/2006 National Survey of Children with Special Health Care Needs http://cshcndata.org/Content/StatePrevalence2005.aspx?geo=Minnesota

[11] Estimates subject to sampling error. Please refer to source documentation for more information.

Children with disabilities who demonstrate improved knowledge and skills and demonstrate the use of appropriate behaviors

The Individuals with Disabilities Education Act (IDEA) requires states to deliver early intervention services to children with disabilities. As part of their effort to improve interventions, the Minnesota Department of Education requires Individualized Family Service Plan (IFSP) teams to assess the developmental progress of children when they enter and exit Minnesota's IDEA Part B and C system. IFSP teams use approved assessment tools, including Indicators of Individual Growth and Development (IGDIs), to rate the degree to which children who received intervention services improved relative to same-age peers.

Statewide facts

Infants and toddlers (under age 3; Part C)

- Acquisition and use of knowledge and skills (including early language and communication *skills)* – percent of assessed children under age 3 who narrowed the gap or maintained functioning comparable with same-age peers: 73%

- *Use of appropriate behaviors to meet their needs* – percent of assessed children under age 3 who narrowed the gap or maintained functioning comparable with same-age peers: 78%

Preschoolers (ages 3-5; Part B)

- *Acquisition and use of knowledge and skills (including early language and communication skills)* – percent of assessed preschoolers who narrowed the gap or maintained functioning comparable with same-age peers: 80%

- *Use of appropriate behaviors to meet their needs* – percent of assessed preschoolers who narrowed the gap or maintained functioning comparable with same-age peers: 85%

Source and further information

- Minnesota Part B and C Annual Performance Reports, FFY 2006 http://education.state.mn.us/MDE/Accountability_Programs/Compliance_and_Assistance/Federal_Communications/index.html

System indicators of quality and access

Children ages 0-2 and 3-4 enrolled in quality early childhood programs

Early childhood programs can have a positive influence on young children, preparing them to succeed in school and life. Programs exhibiting higher quality care and educational experiences yield the largest benefits to children and society.

Child care licensing supports a basic level of quality; determining higher levels of quality is left to parents, who rely on information about the educational attainment of providers, the accreditation status of centers, and direct observation to make child care choices.[12]

Data from the Minnesota Child Care Resource and Referral (CCR&R) Network were analyzed to determine enrollment in child care programs exhibiting an indicator of quality.[13] CCR&Rs regularly survey formal child care sites (those licensed or regulated by a non-state institution, such as a place of worship) about their enrollment levels and indicators of quality. For family child care providers, the quality indicator is a child-related bachelor's degree. For centers and preschools, accreditation is the indicator. All Head Start programs are considered quality.

Statewide facts

- Infant and toddler enrollment in child care: 70,086
- Infant and toddler enrollment in child care with an indicator of quality: 10,788 (15%)
- Of sites caring for infants and toddlers, those with an indicator of quality: 1,294 (11%)
- Preschool-age enrollment in Head Start or child care: 157,267
- Preschool-age enrollment in Head Start or child care with an indicator of quality: 35,213 (22%)
- Of sites caring for preschoolers, those with an indicator of quality: 1,411 (11%)

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[12] Minnesota's quality rating system, Parent Aware, lists sites rated higher than licensing, but the system is not yet available on a statewide level. See http://www.parentawareratings.org/ for more information.

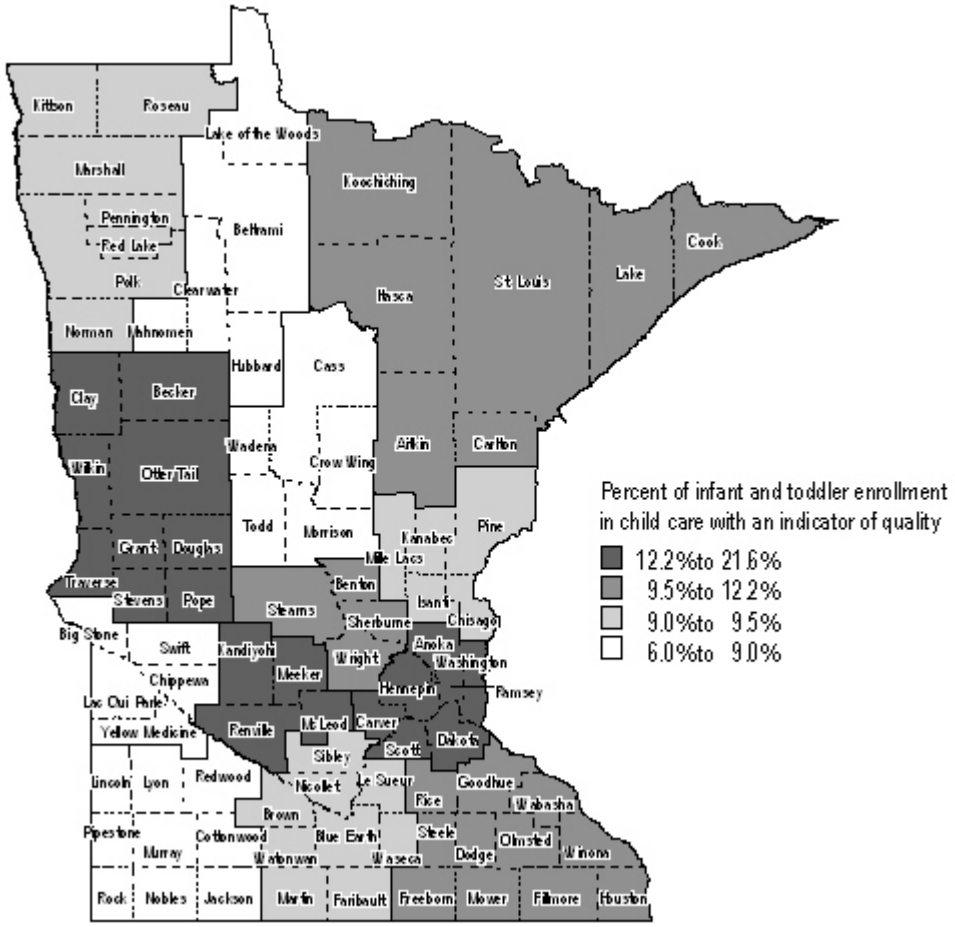
[13] Reported enrollment may duplicate children who attend more than one site and may count two children who attend part time as one child. Therefore, enrollment is a proxy measure that more closely represents child care spaces than actual children.

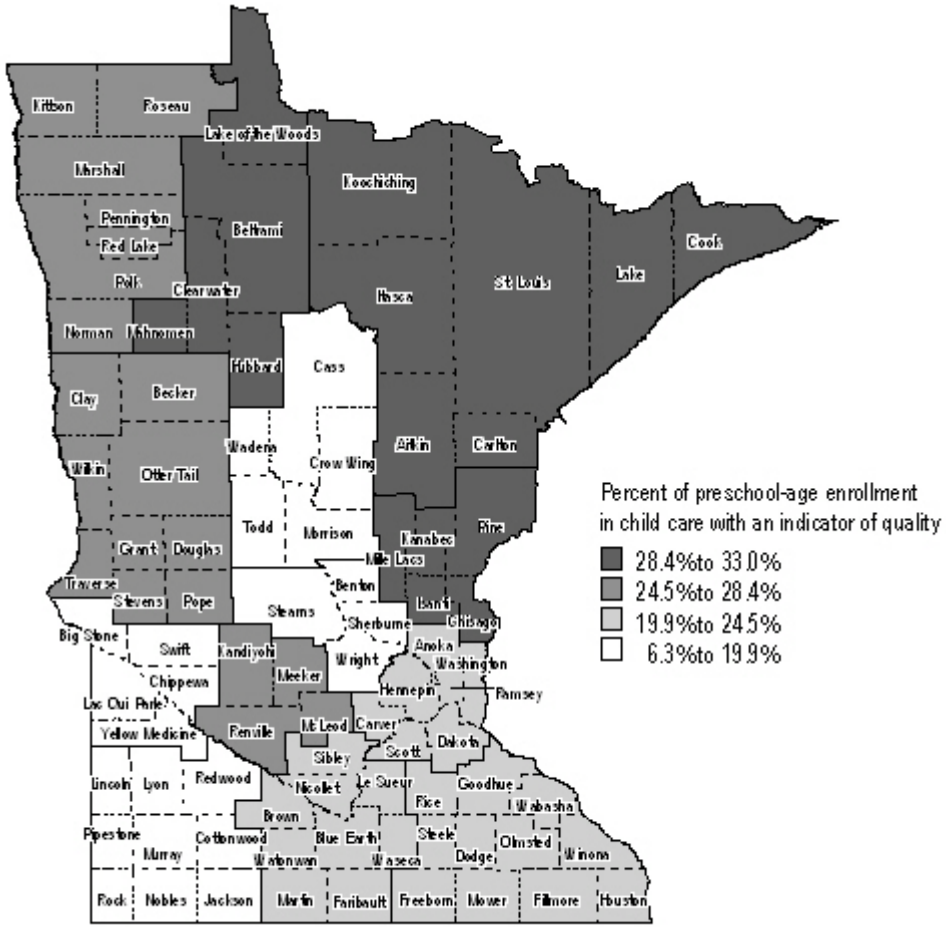
Enrollment in formal child care with an indicator of quality by income (proxy)

Sites caring for low-income children through the Child Care Assistance Program

- Infant and toddler enrollment in child care with an indicator of quality: 6,428 (19%)
- Preschool-age enrollment in child care with an indicator of quality: 13,718 (23%)

21. Enrollment in formal child care with an indicator of quality by economic development region





Note: *Shaded areas represent economic development regions. Dotted lines represent county boundaries. Regions are separated into four similarly sized groups. See Appendix A3 for the data table.*

Sources and further information

- Minnesota Child Care Resource and Referral Network: http://www.mnchildcare.org

Participation rates in ECFE and other parent education and support models

> "The purpose of Early Childhood Family Education is to provide parenting education to support children's learning and development. Families expecting children or who have children up to kindergarten entrance and their relatives may voluntarily participate in parent education, early childhood education and parent-child together learning activities."
>
> *-Minnesota Department of Education*

Statewide facts

- Parent and child participants in ECFE classes, home visits, and special events (duplicated): 283,434
- Parent participants (duplicated): 150,955
  - Parents participating in classes and/or home visits (duplicated): 65,544
  - Parents participating in special events only (duplicated): 87,573
- Child participants (duplicated): 132,479
  - Children participating in classes and/or home visits (duplicated): 65,593
  - Children participating in special events only (duplicated): 68,392

Participation in ECFE by income

- Percent of participating families with household incomes of less than $30,000: approximately 21%

Participation in ECFE by race/ethnicity

- Percent of participating families identified as families of color: more than 18%

Source and further information

- *Early Childhood Family Education (ECFE): FY 2006 Participant Data* http://education.state.mn.us/MDE/Learning_Support/Early_Learning_Services/Parent_Reports/index.html

Businesses offering living wages and paid parental leave

This indicator is difficult to measure because compensation is not uniform throughout a business. Firms offer wages and benefits that vary depending on the number of employees, skills required, and local cost of living. Additionally, established business surveys do not cover this topic in detail.[14]

An alternative measure, employed parents of infants using parental leave, is featured below. It differs from the indicator by:

1. focusing on employees instead of businesses
2. using the federal poverty level instead of the local living wage
3. using available data that make no distinction between paid and unpaid parental leave.[15]

Statewide fact[16]

- Percent of employed parents of infants using parental leave in 2005-07: 7.4%

Employed parents of infants using parental leave by income

- Percent of low-income (less than 200% of poverty) employed parents of infants using parental leave in 2005-07: 4.3%
- Percent of higher income (at or above 200% of poverty) employed parents of infants using parental leave in 2005-07: 8.1%

Employed parents of infants using parental leave by race/ethnicity

- Percent of employed parents of infants using parental leave in 2005-07 who identify as white: 6.8%
- Percent of employed parents of infants using parental leave in 2005-07 who identify as a person of color and/or Hispanic or Latino ethnicity: 11.3%

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[14] For example, see the 2005 *Minnesota Employee Benefits Survey*, available at http://www.deed.state.mn.us/lmi/publications/benefits.htm.

[15] In theory, parental leave increases as employers expand paid parental leave benefits and/or increase wages in real terms, all else being equal.

[16] Estimates subject to sampling error. Please refer to source documentation for more information.

Source and further information

- Current Population Survey (CPS) Annual Social and Economic Supplement
  http://www.census.gov/cps/

- CPS Data at the National Bureau of Economic Research
  http://www.nber.org/data/cps_index.html

Young children being served through publicly funded mental health services compared to estimated need

The State of Minnesota and local mental health and screening programs estimate that approximately 5 percent of children under age 6 have a serious emotional disturbance (SED) and could benefit from mental health services. About one-third of public responsibility SED children (all ages) receive services through Minnesota's public mental health system. Two-thirds remain unserved for several reasons, including:

- underfunding of children's mental health services in the public sector

- a shortage of qualified and culturally-competent mental health professionals

- a fragmented system supervised by the state, administered by counties, and lacking presence in public schools

- stigma towards mental illness that discourages people in need from seeking services, especially among cultural minorities and recent immigrant groups

Statewide facts

- Children under age 6 with a serious emotional disturbance (SED): 20,759 (5.0%)

- Children under age 6 enrolled in Minnesota Health Care Programs (MHCP) in 2006 who received services from mental health professionals: 4,016 (2.6%)

22. Mental health services by race/ethnicity

	Percent of children under age 6 enrolled in MHCP within each racial/ethnic group receiving mental health services in 2006
American Indian	5.0%
Asian	0.7%
Black or African American	2.4%
White	3.4%
Hispanic or Latino ethnicity (any race)	1.0%

Sources and further information

- *Children's mental health: Transforming services, supports to better meet children's needs* http://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-5051-ENG

- Minnesota's 2008 Community Mental Health Services Federal Block Grant Application http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_003705

- Children's Mental Health Division http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_000162

Children covered by health insurance

Prenatal care, well-child check-ups, blood-lead levels, childhood obesity, and receiving special health care for a disability – these and other indicators in this report point to the importance of health care access for all young children and their families. However, rates of health insurance coverage have fallen in recent years as costs have risen. Moreover, disadvantaged children are less likely than their peers to be covered.

Statewide fact[17]

- Percent of children under age 6 covered by health insurance: 95.2%

Health insurance coverage by income

- Percent of children under age 6 in low-income families (at or below 200% of poverty) covered by health insurance: 91.1%

- Percent of children under age 6 in higher income families (greater than 200% of poverty) covered by health insurance: 96.8%

Health insurance coverage by race/ethnicity

- Percent of children of color under age 18 covered by health insurance: 87.2%

- Percent of white[18] children under age 18 covered by health insurance: 95.2%

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[17] Estimates subject to sampling error. Please refer to source documentation for more information.

[18] Includes children identified as white in combination with another race/ethnicity.

Health insurance coverage by region

- Percent of children under age 6 in the Twin Cities Metro covered by health insurance: 96.3%
- Percent of children under age 6 in the Greater Minnesota covered by health insurance: 93.7%

Source and further information

- Minnesota Department of Health and University of Minnesota School of Public Health, 2007 Minnesota Health Access Survey http://health.state.mn.us/divs/hpsc/hep/publications/coverage/

Children who receive regular well-child examinations and immunizations

Regular medical check-ups support the health and well-being of young children by enabling preventative care like immunizations and familiarizing parents with the health care system.

Statewide facts about well-child examinations[19]

- Percent of children under age 2 meeting AAP well-child visit guidelines in 2002: 49.8%
- Percent of children ages 2-6 meeting AAP well-child visit guidelines in 2002: 83.2%

23. Well-child examinations by income

Household income	Percent of children under age 18 meeting AAP well-child visit guidelines in 2002
< $25,000	72.1%
$25,000 to $35,000	75.3%
$35,001 to $50,000	77.7%
$50,001 to $75,000	69.3%
$75,001+	69.3%

[19] Estimates subject to sampling error. Please refer to BRFSS documentation for more information.

Well-child examinations by race/ethnicity

- Percent of white, non-Hispanic children under age 18 meeting AAP well-child visit guidelines in 2002: 69.3%
- Percent of children or color and/or Hispanic or Latino ethnicity under age 18 meeting AAP well-child visit guidelines in 2002: 82.9%

Well-child examinations by region

- Percent of children under age 18 in Greater Minnesota meeting AAP well-child visit guidelines in 2002: 67.3%
- Percent of children under age 18 in the Twin Cities Metro meeting AAP well-child visit guidelines in 2002: 75.5%

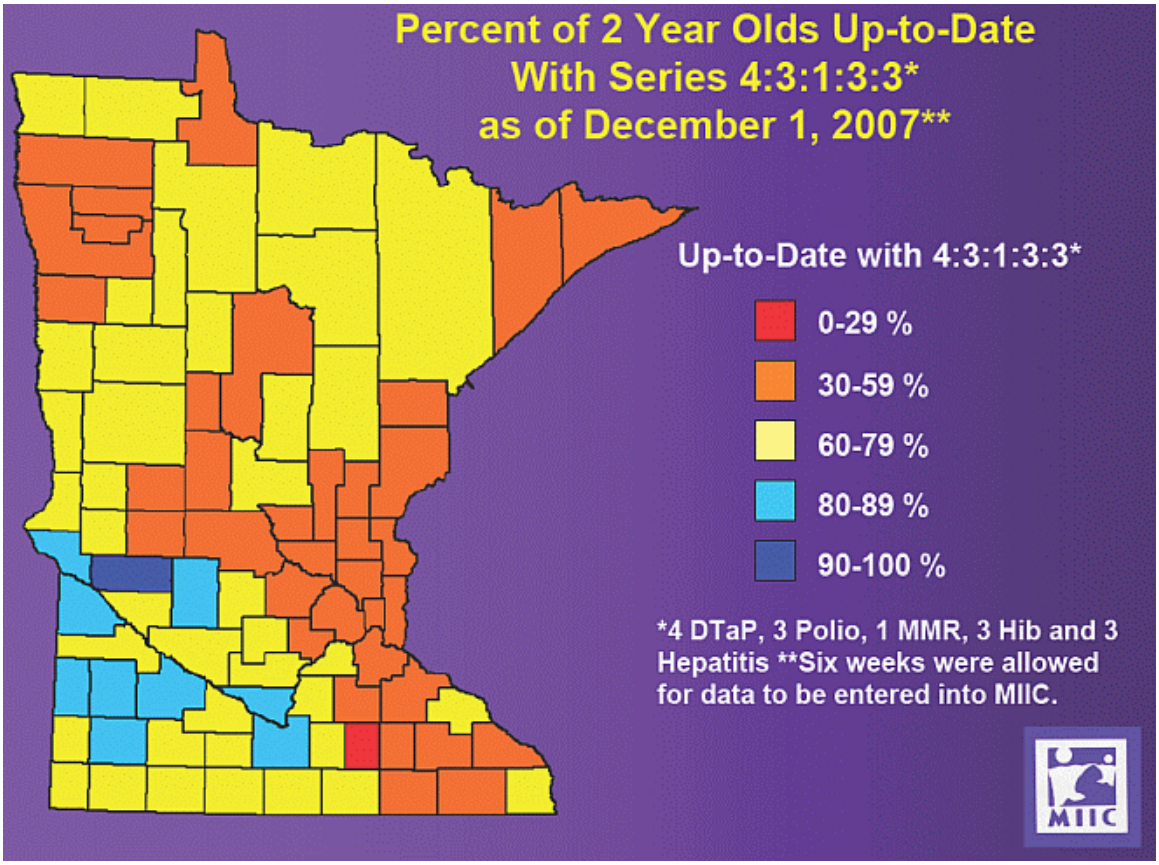
Statewide facts about immunizations

- Percent up-to-date for primary series immunization levels at 17 months of age in 2000-01: 78%

24. Immunizations by race/ethnicity

	Percent within group up-to-date for primary series immunization levels at 17 months of age in 2000-01
American Indian	71%
Asian	65%
Black or African American	61%
Hispanic or Latino ethnicity	66%
White	81%

25. Immunizations by county



Sources and further information

- *2002 BRFSS Child Health Module Data Book*
  http://www.health.state.mn.us/divs/hpsc/hep/publications/utilization/brfss2002.pdf

- *Investing in Minnesota's Populations of Color and Americans Indians: 2007 Legislative Report*
  http://www.health.state.mn.us/ommh/publications/legislativerpt2007.pdf

- Minnesota Department of Health, Minnesota Immunization Information Connection (MIIC)
  http://www.health.state.mn.us/divs/idepc/immunize/stats/childimmstats.html

Pregnant women receiving early and regular pre-natal visits

Early and regular prenatal checkups enable timely and preventative care to enhance the health of mothers and their babies. Deriving information from birth certificates, the prenatal care index, GINDEX, rates the adequacy of a mother's prenatal care. Prenatal care is rated "adequate or better" if checkups are numerous and start in the first trimester. An intermediate number of visits beginning in the first or second trimester is deemed "intermediate" care. Prenatal care is rated "inadequate" if visits are either too few or begin in the third trimester.

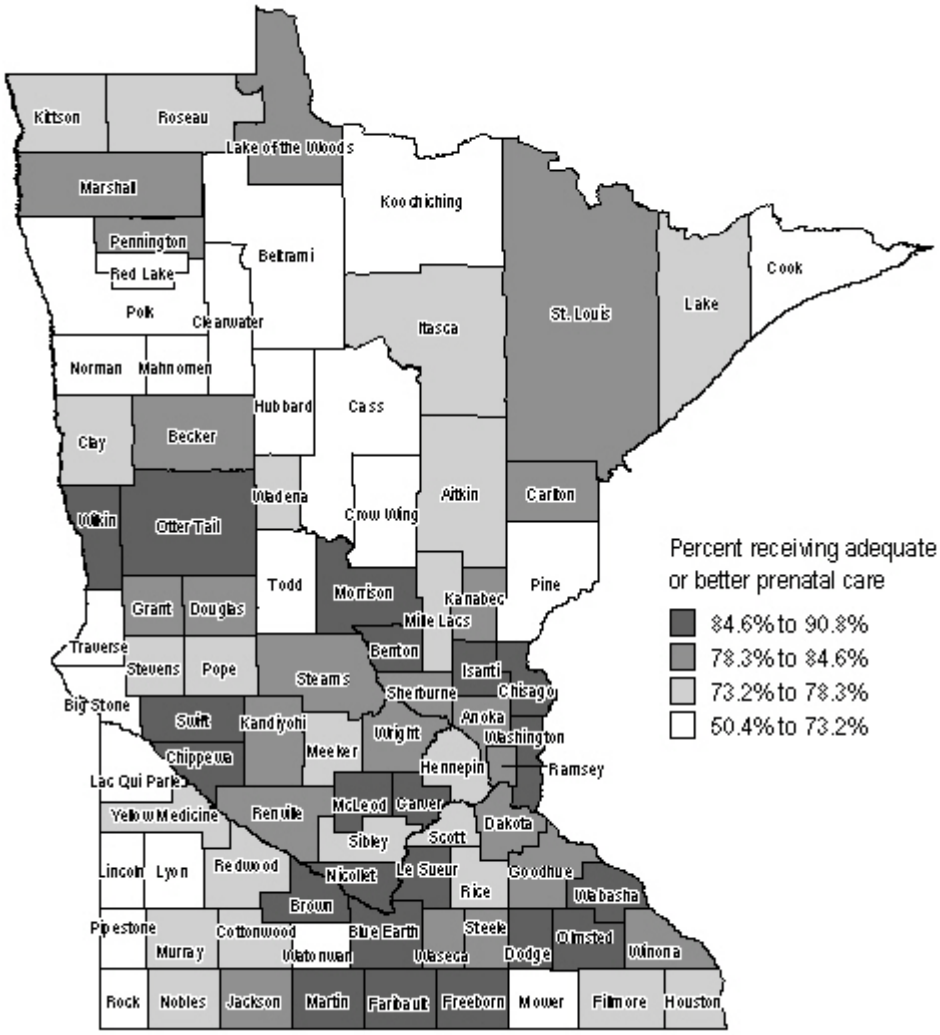
Statewide facts

- Percent of mothers who gave birth in 2006 who received adequate or better prenatal care: 79.2%
- Percent of mothers who gave birth in 2006 who received intermediate prenatal care: 17.4%
- Percent of mothers who gave birth in 2006 who received inadequate prenatal care or none at all: 3.4%

26. Adequate or better prenatal care in 2001-05 by race/ethnicity

	Percent within each group
American Indian	50.6%
Asian	67.0%
Black or African American	61.6%
White	81.6%
Hispanic or Latina ethnicity (any race)	59.1%

27. Adequate or better prenatal care in 2006 by county



Note: *Counties are separated into four similarly sized groups. See Appendix A2 for the data table.*

Sources and further information

- *2007 Minnesota County Health Tables*, Natality Section
  http://www.health.state.mn.us/divs/chs/countytables/profiles2007/index.html

- *Populations of Color Health Status Report*, Spring 2007
  http://www.health.state.mn.us/divs/chs/POC/

Children participating in early childhood screening

In FY 2007, 62,298 children were screened for factors that can interfere with learning, growth, and development. Ninety-six percent (59,752) were screened through the Minnesota Department of Education's Early Childhood Screening (ECS) program. Of those screened through ECS, 38 percent were age 3; 45 percent were age 4; 17 percent were age 5; and 2.5 percent were screened more than a month after entering kindergarten.

Statewide fact

- Total number of new potential problems identified through Early Childhood Screening: 23,429

Source and further information

- 2007 *Early Childhood Screening Program and Participant Data* http://education.state.mn.us/mdeprod/groups/EarlyLearning/documents/Report/034473.pdf

Children birth to 3 who are served through Part C Early Intervention

Statewide fact

- Infants and toddlers in Minnesota's Part C system with an Individualized Family Service Plan (IFSP) in 2006: 6,770

Source and further information

- *Minnesota Part C Annual Performance Report*, FFY 2006 http://education.state.mn.us/MDE/Accountability_Programs/Compliance_and_Assistance/Federal_Communications/index.html

Newborns identified with hearing problems and diagnosis by 3 months of age; and enrolled in early intervention by 6 months of age

The Minnesota Department of Health works with health care providers and parents to ensure that all newborns are screened for hearing loss by one month of age, to confirm/ diagnose hearing loss by three months of age, and to enroll children in early intervention for hearing loss by six months of age. The "1-3-6 plan" had been voluntary prior to 2007 when the Minnesota Legislature passed a law mandating that all newborns receive services in accordance with the 1-3-6 plan. Data in this report represent 2006; future years will better reflect the prevalence of hearing problems in the population as well as the degree of adherence to the 1-3-6 plan.

Statewide facts

- Occurrent births reported to have been screened for hearing in 2006: 60,683 (82.6%)
- Percent of screened newborns who received screening within one month of age in 2006: 98.6%
- Percent of screened newborns not passing final screen in 2006: 4.4%
- Percent of screened newborns not passing final screen and for whom a diagnostic evaluation was reported in 2006: 3.5%
- Percent of screened and evaluated newborns diagnosed with hearing loss who received diagnostic evaluation by 3 months of age in 2006: 56.9%

Source and further information

- Minnesota Newborn Hearing Screening / Early Hearing Detection and Intervention http://www.health.state.mn.us/divs/fh/mch/unhs/

PART II: RECOMMENDED STRATEGIES

Previous pages have documented and established baseline data for indicators determined by multiple stakeholders to be common and measurable across the four ovals of early childhood systems building. Increasing (or in some cases decreasing) the numbers related to each indicator will help make great strides for young children and families in Minnesota. This section of the report concentrates on policy strategies and actions that may help move the needle on the indicators of child and family health and well-being and system quality and access. While many of the strategies require a cooperative relationship between the state and local communities, some strategies require action from either the state or local communities. Examples of strategies that have been put into action in Minnesota can be found in this section.

Issues of culture, class, race, and language are central to the discussions of policy strategies for early learning, health, family support, or early intervention. Minnesota has American Indian tribes, diverse communities of color, and growing immigrant and refugee communities. Steps must be taken to ensure cultural competence throughout Minnesota's early childhood system, including policies that support this diversity and an early childhood workforce that is able to effectively communicate with and care for all of our youngest children.

Early learning strategies for improving child and family health and well-being

Research tells us that early experiences and relationships shape a young child's healthy development.[20] These experiences occur inside and outside the home – in and out of early education and care programs. Children who attend a high quality early education program in the year or two before kindergarten are better prepared for school – academically, socially, and emotionally. Economically disadvantaged 3- and 4-year old children who participate in high-quality preschool programs have better school achievement, social skills, and behavior than children who do not participate in a preschool experience or who are enrolled in a low quality program.[21]

Assess school readiness of children at Kindergarten entry

Assessing the readiness of children as they enter kindergarten can be useful for planning more effective services that prepare children across the five developmental domains of language and literacy, physical development, mathematical thinking, social-emotional development, and the arts. Effective school readiness assessment practices are conducted annually, address all domains of child development, and are appropriately aligned with early learning standards and K-3 education standards. [22] Kindergarten school readiness assessment data can be used to:

- Show the level of 'school readiness' in the state and raise public awareness on the need to improve school readiness, especially among at-risk groups;
- Determine which groups of children lack school readiness skills;
- Identify policies and strategies to close the gaps in school readiness and school achievement;
- Track progress made in the state over time in achieving school readiness.

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[20] Davies, D. (1999). *Child development: A practitioner's guide*. New York: The Guildford Press.

[21] *Getting Ready: Findings from the national School Readiness Indicators Initiative, a 17 State Partnership* 2005. Rhode Island Kids Count.

[22] *Getting Ready: Findings from the national School Readiness Indicators Initiative, a 17 State Partnership* 2005. Rhode Island Kids Count.

Provide high quality early learning experiences for low-income children

For young children from low-income families, participation in very high-quality, center-based, early education programs has been demonstrated to enhance child cognitive and social development. Effective center-based programs provide some combination of the following characteristics: (1) highly skilled teachers; (2) small class sizes and high adult-to-child ratios; (3) age-appropriate curricula and stimulating materials in a safe physical setting; (4) a language-rich environment; (5) warm, responsive interactions between staff and children; and (6) high and consistent levels of child participation. The most extensive evidence for the benefits of high-quality learning environments for children from low-income families comes from growing numbers of programs that serve three- and four-year-olds. Evaluations also have shown positive effects of some early care and education programs that began shortly after birth (e.g., the Abecedarian Program), but fewer long-term studies of these programs have been conducted.[23]

Implement early literacy strategies in ECE settings and homes, and expand family literacy efforts

Children gain significant knowledge of language, reading, and writing before they enter school. Early literacy development is a continuous developmental process that begins in the first years of life. Early literacy skills are developed through positive interactions with parents, other adults, other children, and literacy materials.24 Research suggests that early literacy training for early care and education professionals and parents is a key to future school success. Two programs in Minnesota are seeing positive results. Words Work!™ and the University of Minnesota's Early Childhood Educator Professional Development Program both work inside local preschool classrooms with teachers and staff and with parent in their homes. Parents and early care and education providers may also access early literacy activities at local libraries and children's museums.[25]

SPOTLIGHT ON COMMUNITIES

Words Work!™ is an early literacy program aimed at closing the achievement gap beginning in preschool. The program, which has taken place in over 40 Head Start classrooms in Ramsey and Dakota counties, uses an integrated approach to support learning and teaching. Words Work!™ uses four key principles:

- Surround children with literacy.
- Respect home language and culture.
- Teach the teachers, helping them stay engaged, motivated and satisfied as members of learning teams.
- Use assessment for continual improvement, empowering teachers to understand, plan and implement strategies that meet student needs.

For more information go to: http://www.saintpaulfoundation.org/giving_opportunities/find_funds_by_issue/words_work/

[23] *A Science Based Framework for Early Childhood policy: in Learning, Behavior, and Health for Vulnerable Children.* Center on the Developing Child. Harvard University. 2007.

[24] National Research Council. (1998). *Preventing reading difficulties in young children*. Snow, C., Burns, M. S., & Griffen, P. (eds.). Washington, DC: National Academy Press.

[25] Cheung, S., Rodriguez, M., Butler, J., & Donovan, S. (2005). *Words Work! Year 4 Longitudinal Analysis: Executive Summary.* ACET, Inc. 2005. Unpublished.

Develop specific supports for family, friend, and neighbor (FFN) providers

Child care provided by FFN providers is an integral component of the early care and education system in Minnesota. Fifty-two percent of households with children under the age of 12 rely on FFN care for some portion of their week.[26] Minnesota is a national leader in researching FFN possibilities. The 2007 Legislative Session provided $750,000 in grants for community partnerships with parks and recreation, libraries, early care and education providers, and other sources such as children's museums and other community-based organizations to provide supports for FFN providers. Adding home visiting services to FFN providers through programs like ECFE, Early Head Start, and others may also help to improve the quality of FFN care.[27]

SPOTLIGHT ON TRIBAL PROGRAMS

White Earth Child Care program received an FFN grant from the Department of Human Services to provide outreach, training and support to FFN caregivers on the White Earth reservation and surrounding counties. Funds are used to:

- purchase first aid items such as fire extinguishers, safety gates, smoke detectors, door latches, etc.
- purchase CHELLO Assessment tool/user's guide and the Minnesota Ounce scale; CHELLO evaluations have started on home visits
- purchase items for literacy kits and put together theme-based developmentally appropriate kits with books, art/craft supplies and child development information; kits are distributed during home visits

White Earth also provides a Readmobile, which visits FFN homes and brings books and other resources, particularly in the Ojibwe language to FFN caregivers and the children in their care.

For more information go to: www.whiteearthchildcare.com

[26] Chase, R., Arnold, J., Schauben, L., & Shardlow, B. (2004). *Child care use in Minnesota: 2004 statewide household child care survey*. Saint Paul, MN: MN Department of Human Services. Retrieved from: http://www.wilder.org/
Chase, R., Arnold, J., Schauben, L., & Shardlow, B. (2004). *Family, friend, and neighbor caregivers: Results of the 2004 Minnesota statewide household child care survey*. Saint Paul, MN: MN Department of Human Services. Retrieved from: http://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4516-ENG

[27] *"Assessing Initiatives for Family, Friend and Neighbor Child Care: An Overview of Models and Evaluations,"* (March 2007), *Research to Policy Connections* No. 5, by Toni Porter,

Early learning strategies to improve system quality and access

Implement a statewide quality rating and improvement system for early care and education programs

A Quality Rating System (QRS) is a systemic approach to assess, improve, and communicate the level of quality in early care and education programs. A QRS awards quality ratings to early care and education programs that meet a set of defined program standards. These systems provide an opportunity for states to increase the quality of care and education for children; increase parents' understanding and demand for higher quality care; and increase professional development of child care providers. QRS can also be a strategy for aligning components of the early care and education system for increased accountability in improving quality of care. As of July 2007, 14 states had implemented a QRS statewide; while several other states (including Minnesota) are in the process of piloting a QRS.[28] Quality rating systems can also act as a lever for incentivizing quality improvements for providers. Parents may also benefit from choosing high quality care through incentive programs.

SPOTLIGHT ON MINNESOTA

Parent Aware is a quality rating system (QRS) currently being piloted in five communities in Minnesota including: St. Paul, North Minneapolis, Wayzata, Blue Earth, and Nicollet Counties. Parent Aware builds on child care accreditation and Head Start standards and uses five basic guidelines for awarding ratings:

- Family partnerships
- Teaching materials and strategies
- Tracking learning
- Teacher training and education
- Child safety

For more information about Parent Aware go to: http://www.parentawareratings.org/

Provide direct grants to programs to assist them in meeting quality standards

Providing supports for providers and programs helps assist programs in meeting quality standards. Grants can cover the costs of: professional development for providers, technical assistance for program quality improvement, program improvement costs, and other financial incentives. Kentucky's STARS for KIDS NOW includes a variety of supports to programs and providers which include: a one-time achievement award to programs, quarterly quality incentive awards to programs, and scholarships to providers who work a minimum of 20 hours per week in a preschool setting.[29]

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[28] National Child Care Information Center. (2007). *Quality rating systems: Definition and statewide systems.* Washington, DC: Author. Retrieved from: http://www.nccic.org/pubs/qrs-defsystems.html

[29] NAEYC Quality Rating and Improvement Systems (QRIS) Toolkit. 2008. www.naeyc.org.

Expand access for low-income children to attend quality early care and education programs through portable subsidies to parents and direct grants to programs

Children from low-income families who participate in high quality early education programs show the greatest magnitude of benefits. Children with high quality early learning experiences are 40 percent less likely to need special education or to be held back a grade.[30] Low-income families need financial support to allow access for their children to a quality setting. Possible strategies in Minnesota include expanding portable subsidies such as the MELF scholarship program, the Pre-K Allowances, or child care subsidies used in programs meeting quality standards, and increasing funds directly to programs such as Head Start, School Readiness Programs in the public schools, and child care programs that meet quality standards.

Link child care subsidy reimbursement to quality

Child care subsidies are one way that low income families receive indirect monetary support from federal and state government. The Minnesota Child Care Assistance Program (CCAP) provides financial subsidies to help parents pay for child care so that parents are able to pursue employment or education leading to employment.[31] Historically, Minnesota has been a leader in linking child care subsidies to quality care and has provided a 15 percent rate differential to programs and providers offering high quality early care and education. (Quality is determined through accreditation for center-based care and by education for family providers.) The Minnesota Department of Human Services is currently piloting a program that offers more incentives to programs that offer full day/full year, comprehensive services for families. The School Readiness Connections program offers a 25 percent subsidy rate differential on top of the 15 percent differential already offered for high quality programs (if the program meets quality standards). Expanded funding for this type of program holds promise for benefiting children and families as well as further incentivizing quality improvement for providers.

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[30] 2 Reynolds, A.J., Temple, J.A., Robertson, D.L., & Mann, E.A. "Long-term Effects of Early Childhood Intervention on Education Achievement and Juvenile Arrest." Journal of the American Medical Association, vol. 285, No. 18, 2001.

[31] Minnesota Department of Human Services. (2008). *Child care assistance: Facts and figures*. Saint Paul, MN: Author. Retrieved from: http://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4745-ENG

Offer accreditation consultation to center-based providers and professional mentoring to family based providers

A study conducted by the Minnesota Department of Human Services suggests that quality matters in early learning: almost twice as many children in accredited care (a high predictor of quality) were found to be school ready as children not in accredited child care.[32] Many quality rating systems – including Parent Aware – use national accreditation as the top tier and highest standard of quality. Accrediting bodies such as the National Association for the Education of Young Children and the National Association for Family Child Care have developed comprehensive, research-based criteria that promote quality early care and education experiences for young children and families. Sorting through standards, criteria, and evidence can be daunting for providers. The Minnesota Association for the Education of Young Children (MnAEYC) offers help to providers in navigating the accreditation process through their Accreditation Facilitation Project.

[32] Minnesota Department of Human Services. (2005*). School readiness in child care settings: A developmental assessment of children in 22 accredited child care centers*. Saint Paul, MN: Author. Retrieved from: http://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4362-ENG

Increase the number of early childhood teachers with a CDA, teacher's certification or degree in early childhood development

Specialized education and training in child development for teachers is linked to more sensitive caregiving and better developmental outcomes for children.[33] The Minnesota Department of Human Services is working with Metro State University, the Minnesota Child Care Resource and Referral Network and others to develop a comprehensive early childhood professional development system. The Department has a Professional Development Advisory Council that is facilitating the development and ongoing coordination of an inclusive collaborative of the early childhood and youth professional development system in Minnesota.[34]

Programs delivered through the Minnesota Child Care Resource and Referral Network such as the T.E.A.C.H. Early Childhood Minnesota and R.E.E.T.A.I.N programs, on-line learning courses through Eager To Learn, and 'Not by Chance' have been successful in increasing the number of early care and education providers who have completed early childhood degrees.

SPOTLIGHT ON COMMUNITIES

The Early Childhood Resource and Training Center (ECRTC) is a grassroots agency in Minneapolis established in 1973 as a resource for building up families and communities to ensure the healthy development of all children.

ECRTC's IMPACT Stage 1 program is a twelve month, 12 credit course provided at the ECRTC office by instructors with the Minneapolis Community and Technical and St. Paul College. At the completion of the course work and work related experience, students qualify to be an assistant teacher in a child care center. Emphasis is on culturally responsive care to ensure the cultural competence of practitioners. The training is supplemented with opportunities for technical assistance and mentoring.

IMPACT is an effective, community-based program which supports new American immigrants, caregivers from cultural communities, and others who benefit from a supportive environment for taking college-credit coursework.

For more information go to: http://www.ecrc1.org/

[33] National Research Council, Institute of Medicine. (2000). *From neurons to neighborhoods: The science of early childhood development.* Shonkoff, J.P. and Phillips, D.A. (eds.). Washington, DC: National Academy Press.
Whitebrook, M., Howes, C. and Phillips, D. (1990). *Who cares? Child care teachers and the quality of care in America*. Washington, DC: Center for the Child Care Workforce.

[34] Minnesota Professional Development Council, c/o MnAEYC, 1821 University Ave W, Suite 298S, Saint Paul, MN 55104, 651-646-8689, MnPDCouncil@aeyc-mn.org, http://www.mnpdcouncil.org

Family support strategies for improving child and family health and well-being

Families play the most important role in the lives of children. A young child's healthy development is most at risk when his or her family is under financial and other stress or is somehow constrained in developing nurturing and well attached relationships. Increasing family protective factors such as parenting skills, work supports, and residential stability and decreasing family risk factors plays an important role in closing the achievement gap for young children. Strengthening families in the context of their economy, neighborhoods, and communities can help to achieve substantial results.

Provide low-income parents and new immigrants with Adult Basic Education (ABE) and English Language Learners (ELL) classes

By providing Minnesotans with basic academic skills and high school equivalency, ABE Programs help participants improve their economic condition and become contributors to the economy and to their families. Educational attainment, especially attainment of an educational credential, is one of the most important influences on economic well-being. Increasing literacy skills through ABE programs, such as GED, ESL and workplace literacy, leads adults to job attainment and job retention. As new Americans become proficient in learning English and in preparing for citizenship, their employment opportunities and earnings increase. As a result, new Americans are able to own and rent properties, buy groceries, clothes, shoes, and other essentials.[35]

Provide income supports for low income working families

Low-income working families need help to move out of poverty. Income supports help increase overall family income when earnings are insufficient. Although more low income individuals are working since welfare reform in the 1990's, most of the increase can be seen in low-skill, low-wage jobs that offer no hope of wage increases or career advancement.[36] Work support programs help families meet basic needs and can provide a financial cushion for low-income working families who are striving to maintain

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[35] *Impact: ABE in Minnesota.* 2004. Anne Marie Leland, Minnesota Department of Education; Marianne Hummel, Metro North ABE; Jenny Schlukebier, Minnesota Literacy Council; and Astrid Liden, Minnesota Literacy Council.

[36] National Governor's Association. (2004). *Building bridges to self-sufficiency: Improving services for low income working families*. Washington, DC: Author. Retrieved from: http://www.acf.hhs.gov/programs/opre/welfare_employ/improv_lowincome/reports/building_bridges/building_bridges.pdf

employment.[37] Work supports in Minnesota may include MFIP (cash assistance), food stamps, WIC, the Child Care Assistance Program, Medicaid, the State Child Health Insurance Program (SCHIP), the Earned Income Tax Credit (EITC), the Child Care Tax Credit, and the Child Tax Credit (CTC). Work support programs may also concentrate on educational attainment and career advancement, money management, and asset-building.

Increase the number of low income families receiving child care subsidies

Minnesota's Child Care Assistance Program (CCAP) helps to make child care affordable for income-eligible families. Families have a co-payment based on their annual gross income and family size. CCAP is available to families receiving cash assistance through the Minnesota Family Investment Program (MFIP) and to other low income families through the Basic Sliding Fee (BSF) program.[38] Those families receiving MFIP are guaranteed child care assistance if they are in compliance with other work requirements. However, waiting lists exist in many counties for BSF services. Increased funding for the BSF program could help buy down or eliminate waiting lists throughout Minnesota.

Connect at-risk expectant and new parents with research-based home visiting programs

The Nurse Family Partnership home-visiting model for low-income expecting and new mothers has solid research findings as to its effectiveness: Improvements in prenatal health, birth outcomes (including greater intervals between births), child development, school readiness, academic achievement, and maternal employment; and reductions in child abuse and neglect, early childhood injuries, mental health problems, and crime. The program produces statistically significant, positive program effects that are repeated and enduring for up to 15 years following the child's birth.[39]

Another home visiting program that has produced positive outcomes for new parents is the Dakota Healthy Families Program, for at-risk families. Dakota County's outcome study shows short-term savings from Dakota Healthy Families. This study was the first of its kind nationally to demonstrate that home visiting for the most at-risk families produces immediate cost avoidance/savings.[40]

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37 Ibid.

38 MN Department of Human Services. (2008).

39 *Nurse-Family Partnership: Effective and Affordable – What's Not to Like About It?* 2007. Nurse-Family Partnership National Service Office.

40 *Home Visiting At-Risk Families: The Dakota Healthy Families Program.* 2007. Gay.bakken@co.dakota.mn.us.

Provide housing subsidies and promote home ownership to low-income families

Efforts to promote home ownership have been positively linked to family stability, improved property maintenance, neighborhood stability, and community participation. Residential stability increases children's social capital and ability to learn because they are able to develop an "education home" – increasing their attendance and participation in school activities and forming lasting relationships with teachers and other community members.[41] Housing subsidies that limit rental payments to 30 percent of family income, the national standard, can have a positive impact on family conditions that affect school readiness. Research indicates that recipients of housing subsidies have better work retention, more available income, and better housing security.[42]

SPOTLIGHT ON MINNESOTA

28 Community Action Agencies throughout Minnesota serve as the 'last local line of defense for families in need' and serve all 87 counties .

Cap Agencies provide an array of **Housing Programs,** including Foreclosure and Homelessness Prevention, Energy Assistance, Homeownership Classes, Fuel Funds, Shelter for the Homeless, Housing Grants and Loans, Rental Assistance and Tenant Information, Housing Development, and Weatherization;

Housing stability improves at a rate of 5 to 1 among people who got housing services compared to those who did not.

For More Information go to:

http://www.minncap.org/

[41] Hango, D. W. (2006). The long-term effect of childhood mobility on educational attainment. *The Sociological Quarterly* 47, 631-664.

[42] *Policy Matters: Improving the Economic Success of Families.* 2003. Washington, DC: Center for the Study of Social Policy.

Family support strategies to improve system quality and access

Provide families with early childhood parenting education

Research shows that early childhood programs involving parents and children are more effective than programs focusing exclusively on children. Educators and psychologists agree that it is vital for early childhood programs to assist parents in their role as primary educators of their children. Involvement prior to kindergarten encourages parents to play an active role in their children's learning throughout their entire education. Children whose parents are involved in their education have been shown to be more successful in school.[43] Minnesota's Early Childhood Family Education (ECFE) program, the University of Minnesota's Extension Program, and other similar programs offer such opportunities. Expanding outreach and funding for these and other similar models of parenting education, especially for low income families, will help support parents and young children. The Minnesota Parents Know website developed by the Minnesota Department of Education is also a valuable resource.

SPOTLIGHT ON MINNESOTA

The Minnesota Department of Education hosts an interactive, cross-system parent website, Minnesota Parent's Know. Within each age level, from newborns to grade 12, parents can find information on child health, development, parenting, referrals, and consumer safety information. A wide variety of formats are available including print, video, and audio in English and several other languages. In addition, the website offers a parent to parent discussion forum where parents can ask questions or share what they have learned.

To learn more go to:
http://www.parentsknow.state.mn.us

[43] Minnesota Department of Education. (2008). *More on ECFE*. Saint Paul, MN: Author. Retrieved from: http://education.state.mn.us/MDE/Learning_Support/Early_Learning_Services/Early_Childhood_Programs/Early_Childhood_Family_Education/002355

Increase the number of families receiving Early Head Start and Head Start services

In 2008, only about a third of income-eligible children were served by Head Start and Early Head Start.[44] Both Early Head Start and Head Start offer comprehensive services to young children and their families, including health promotion services, home visits, parental education, and help reaching educational and employment goals. Early Head Start offers services for pregnant woman and low income families with children 0-3. Services are offered through home visiting and in center-based care situations. Early Head Start and Head Start Programs meeting performance standards are considered high quality early care and education, enhancing family strengths and positively affecting a child's cognitive, language, and social-emotional development. In addition, parenting skills have been shown to be positively impacted through Early Head Start.[45]

SPOTLIGHT ON MINNESOTA

The Minnesota Head Start Association (MHSA) and local Head Start grantees have moved to improve the oral and mental health of young children in Minnesota. Knowing that a majority of Head Start children have problems accessing oral health prevention and treatment, which affects their ability to grow in language and literacy, the Association and its stakeholders in 2003 completed a Statewide Oral Health Action Plan and has been implementing innovative approaches to oral health since then. MHSA is also working with MN Head Start grantees to strengthen Head Start's mental health prevention activities, screening, referral processes, and systems to assure treatment services in the area of mental health.

To learn more go to:
http://www.mnheadstart.org

Encourage employers to offer paid parental leave

Research shows that paid maternity leave results in better health outcomes for mothers and children, yet there is no comprehensive parental leave program in the United States.[46] Although the Family Medical Leave Act (FMLA) of 1993 provides for 12 weeks of "job-protected" leave for parents to tend to child care needs or to take care of an ill family member, this leave is unpaid. FMLA only applies to those companies with 50 or more employees; consequently even the unpaid 12 weeks is not available to all.[47]

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44 Data from the Minnesota Head Start Association are based on 2005 Census numbers.

45 Schumacher, R. & DiLauro, E. (2008). *Building on the promise: State initiatives to expand access to early head start for young children and their families.* Washington, DC: Center for Law and Social Policy and Zero to Three. Retrieved from: http://www.clasp.org/publications/building_on_the_promise_ehs.pdf

46 Lovell, V., O'Neill, E., & Olsen, S. (2007). *Maternity leave in the United States: Paid parental leave is still not standard, even among the best us employers*. Washington, DC: Institute for Women's Policy Research. Retrieved from: http://www.iwpr.org/pdf/parentalleaveA131.pdf

47 Family Medical Leave Act of 1993, Pub. L. No. 103-3 (1993). Retrieved from http://thomas.loc.gov

The national Zero to Three Policy Center reports that low-income working families in particular may be unable to benefit from family leave policies since they cannot afford to take unpaid leave, have jobs with inflexible working conditions, and have a difficult time finding quality affordable infant care. They recommend that states implement programs and policies that make it possible for new parents to provide and care for their new babies, including at-home infant care, flexible sick days, and paid parental leave. Three states – California, New Jersey, and Washington – offer paid parental leave. The United States federal government recently passed legislation that offers six weeks of paid parental leave for federal employees.

Build public awareness of living wage needed for a family's basic needs

Minnesota's Job Now Coalition has produced research identifying what a family's basic needs are and what it costs to meet them. The costs are based upon monthly budget requirements necessary to achieve a "no frills" standard of living – no money for debt payments, entertainment, restaurant meals, or vacation; and nothing is set aside for emergencies, retirement, or children's college education. The basic needs standard falls short of what is usually called a middle-class standard of living. Jobs Now has also developed an innovative Family Wage & Budget Calculator. The family budgets and wage requirements found in the research are available in this interactive on-line calculator. Based on Jobs Now research, the calculator allows the user to customize her own budget, as well as to link to labor market information in regions across the state (www.jobsnowcoalition).

Provide cross-training to child welfare staff, ECE staff, foster care parents, and others providing services to at-risk families regarding Strengthening Families five protective factors

Across the country, early care and education programs, child welfare departments, and others are using the Strengthening Families approach to build five protective factors in families: parental resilience, social connections, knowledge of parenting and child development, concrete support in times of need, children's social and emotional development. Research shows that these factors reduce the incidence of child abuse and neglect by providing parents with what they need to parent effectively, even under stress. By building relationships with families, programs can recognize signs of stress and build families' protective factors with timely, effective help.[48]

[48] http://www.strengtheningfamilies.net/index.php/main_pages/electronic_library/category/evidence

Health and mental health strategies to improve child and family health and well-being

The healthy development of young children is integrally related to their learning, social adjustment, and safety. Children and families benefit from comprehensive health services that cover physical, oral, behavioral, nutritional, and social health. Strong anticipatory guidance – advice and education for parents on how to support a child's health and development – early and continuous screening for physical and mental health development, and follow up services all culminate to support young children and families.

Target lead inspections and subsidized abatements for housing in low-income communities, and increase blood-lead level screening and education throughout the state

SPOTLIGHT ON COMMUNITIES

The city of Worthington, Minnesota has engaged in a community wide plan to prevent lead poisoning. Using a variety of resources and collaboration and integration of home visiting, housing inspections, city ordinances, and outreach to local contractors, the city is working to eliminate elevated blood levels in children and adults.

For more information on this project go to: http://www.health.state.mn.us/divs/eh/lead/reports/surveillance/profile2006.pdf.

Prevention efforts are invaluable to eliminate elevated blood-lead levels in children as exposure can cause irreversible brain damage in some cases. By eliminating lead hazards in a child's environment, he/she will likely not be exposed to lead. Pregnant women and parents of young children are given questionnaires to determine lead exposure rates and screened accordingly through health care and WIC clinics. Although screening is mandatory for children on Medicaid, primary care providers are not required to routinely screen for blood-lead levels on all children. The American Academy of Pediatrics recommends universal screening at 9-12 months and reconsideration at 24-months when blood-lead levels peak.[49] In communities where low-risk for lead exposure has been established, primary care providers should determine risk and screen accordingly on an individual basis. Inspection and abatement are interventions that should be targeted to low-income communities. Parents of young children should be given educational materials on lead exposure at well-child visits, parenting education, and home visits.

Expand after-school adult-supervised programs for youth and teens

Although the rates for teen births are decreasing in Minnesota and nationwide, a wide disparity between race/ethnicity remains. For example, teen birth rates have actually

[49] Hagan, J.F., Shaw, J.S., & Duncan, P.M. (Eds.). (2008). *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 3rd ed*. Elk Grove, IL: American Academy of Pediatrics.

increased over the past two years for Minnesota's Hispanic/Latino teenage girls.[50] Furthermore, teens living in communities of poverty and in households with single-mothers are at an increased risk for teen pregnancy, leading to a disproportionately high concentration of teen pregnancy in poor communities.[51] Prevention is the lead strategy for decreasing teen birth rates. Supporting sustainable adult-supervised after-school and evening programming for youth is an effective method to prevent teen pregnancy. Research shows that longer periods of unsupervised time are associated with more risky sexual behaviors, resulting in unintended pregnancies and/or acquiring sexually-transmitted infections.[52] In a recent report, the Teen Outreach Program (TOP) was identified as a cost-effective strategy to improve early childhood.[53] TOP combines in-school discussions on youth development topics with after-school activities focused on voluntary service-learning and community service. Structured learning does not specifically focus on sexual education, yet outcomes of TOP have shown reductions in teen pregnancy.

Promote healthy lifestyle behaviors for all families and early identification of children at-risk

A child's weight is determined by numerous factors including genetics, metabolism, height, behavior, and environment. However, the two most important factors are diet and activity level; when these two factors are balanced, a healthy lifestyle can be achieved and maintained throughout childhood and into adulthood as well. When a young child is overweight, the child is more likely to continue to be overweight in childhood and is more likely to be obese as an adult. In the past few years, the trend is that children are becoming overweight at earlier ages, leading to increased likelihoods of lifelong difficulties with weight. Aside from weighing "too much," being overweight places the child at an increased risk for health problems such as heart disease, asthma, joint problems, sleep difficulty, diabetes, high cholesterol, and mental health concerns.[54] Nutritional choices

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50 Hamilton, B.E., Martin, J.A., & Ventura, S.J. (2007). Births: Preliminary Data for 2006. National Vital Statistics Reports. 56(7). Hyattsville, MD: National Center for Health Statistics. Retrieved from www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_07.pdf

51 Minnesota Organization on Adolescent Pregnancy, Prevention and Parenting. Pregnancy (MOAPPP). *Poverty, School, and Employment*. Retrieved on June 25, 2008, from http://www.moappp.org/resources/data_facts.html

52 Manlove, J., Franzetta, K., McKinney, K., Papillo, A.R., & Terry-Humen, E. (2004). *A Good Time: After-school programs to reduce teen pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy.

53 Isaacs, J.B. (2007). *Budgeting for National Priorities: Cost-effective Investments in Children*. Washington, DC: The Brookings Institution.

54 Hagan, J.F., Shaw, J.S., & Duncan, P.M. (Eds.). (2008). *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 3rd ed*. Elk Grove, IL: American Academy of Pediatrics.

are also heavily influenced by environmental factors. Families who live in poverty and in poor urban neighborhoods are less likely to have a wide variety of fruits and vegetables at community grocery stores and are more likely to have fast-food restaurants as a first choice for meals. Affordability of healthy food choices is a major factor in meal composition.[55]

The American Academy of Pediatrics recommends that primary care providers use anticipatory guidance on healthy lifestyles for all families beginning in infancy. Focusing on nutrition and physical activities that involve the entire family will promote healthy weight throughout the lifespan. Identifying children at risk for overweight prior to reaching the 95th percentile for BMI is another strategy that can be used in a variety of settings, such as primary care clinics, child care centers, WIC, and schools. Children who are at an increased risk for being overweight include children whose parents are obese, children with an obese sibling, low-income families, and children with special health care needs, especially those with a physical disability.

Provide safe play areas, sidewalks, and bike paths to promote physical activity, and identify and deliver culturally-relevant messages about healthy lifestyles. Promote breastfeeding and healthy eating at WIC appointments, and offer more choices for fruits and vegetables on vouchers in order to increase affordability of healthy choices.

Expand the use of hearing screening instruments for children ages birth to three

Hearing loss is a major detriment to early learning and exploration and is associated with lifelong disabilities. While newborn hearing screening is now mandatory and essential for early identification, there remain a large number of children with possible hearing loss who are identified through Early Childhood Screening at age three and older, which means that learning difficulties may have already begun. Most health care, child care, and Early Head Start providers rely on subjective surveillance methods to assess for possible hearing loss. However, new technology has been developed that is fast, easy, and highly accurate for identification of hearing loss. Otoacoustic emissions (OAE) hearing screening, used widely in hospital-based newborn hearing screening programs, represents a significant advance for other providers screening young children. Portable OAE screening is the most practical method for screening infants and toddlers as it does not require behavioral

[55] Isaacs, S. & Swartz, A. (October 2006). *Banning Junk Food and Soda Sales in the State's Public Schools*. Los Angeles, CA: The California Endowment.

response form the child.[56] It is especially important to re-assess hearing in infants and toddlers who have risk factors as hearing issues may emerge after the newborn period.

Strategies to decrease hearing loss in early childhood include expanding funding and support for the obtainment of OAE technology and training for staff in a wide variety of settings including primary care clinics, child care, and Early Head Start.

Support funding for research on vision screening instruments

Currently there are no effective screening instruments to detect vision problems comparable to OAE. Early childhood providers must rely on surveillance methods and parent observation and reporting at well-child exams in order to initiate referrals to pediatric ophthalmologists. Accordingly, research efforts must be supported to discover cost-effective, easy-to-use vision screening instruments for children birth to age three.

Increase the use of social-emotional developmental screening tools across settings including primary care and child care

In recent years a growing body of evidence has demonstrated that serious socio-emotional, mental health, and behavioral problems can emerge in the very early years. A public health prevention and promotion model assumes a comprehensive view of health that includes the physical, emotional, social, and behavioral aspects of wellness as well as a broad range of strengths and risk factors or barriers in families, communities, and systems of care. Most pediatric primary care providers rely on general surveillance/monitoring in the assessment of developmental and social-emotional problems, which includes parental report, brief observations, and clinical judgment. Yet many providers still miss developmental delays. In an Oregon study, pediatricians did not detect 67.5 percent of developmental delays using typical surveillance methods, especially at age 12 months, compared to the pediatricians who implemented the Ages & Stages Questionnaire, Social-Emotional (ASQ-SE). Referral rates increased by 224 percent when the ASQ-SE was used.[57] Early identification of possible social-emotional disorders can help to reduce disparities later in life. Requiring the use of a standardized screening instrument, such as the ASQ-SE, at a wide variety of settings, including primary care clinics and child care settings, will help to reduce the number of children with possible social-emotional problems who are identified later at Early Childhood Screening.

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[56] Early childhood screening and follow-up. (2008). Utah State University, National Center for Hearing Assessment and Management. Retrieved from http://www.infanthearing.org/earlychildhood/index.html

[57] Hix-Small, H., Marks, K., Squires, J., & Nickel, R. (2007). Impact of Implementing Developmental Screening at 12 and 24 Months in a Pediatric Practice. *Pediatrics*. *120(2),* 381-389.

Health and mental health strategies to improve system quality and access

Expand funding for evidence-based home visiting programs

Home visiting is a long-standing, well-known prevention strategy used by states and communities to improve the health and well-being of families and children, particularly for those most at-risk including low-income, fist-time mothers. Research shows that nurse home visiting, especially beginning in pregnancy and continuing through the first two years of life for women with limited psychosocial resources, results in positive effects on maternal health and child well-being for many years beyond the intervention. The Nurse-Family Partnership program has been shown to be the most cost-effective intervention for infants and toddlers and has resulted in improved pregnancy outcomes through prenatal care and improved parent knowledge of child development and parenting skills.[58] Other benefits include: decreased maternal smoking, decreased emergency room visits, increased time intervals between subsequent births, decreased rates of child abuse and neglect, and more developmentally-appropriate play materials.

Increase the number of qualified early childhood mental health clinicians/consultants throughout the state

The field of infant and early childhood mental health is relatively new, and mental health clinicians and consultants who specialize in this field are difficult to find, particularly in greater Minnesota. Training, certification, and endorsement of clinicians and consultants must be increased in order to increase the number of children served through mental health services. The University of Minnesota now offers certification in infant and early childhood mental health for clinicians and consultants through the Center for Early Education and Development (CEED). Also available throughout the state are training opportunities for professionals on how to use the DC: 0-3R diagnostic tool. Increasing funding and support for these programs will help to increase the numbers of qualified early childhood mental health practitioners throughout the

SPOTLIGHT ON COMMUNITIES

Sauk Rapids-Rice ECFE and St. Cloud State University hosts Greater St. Cloud Area Thrive, a community project focusing on health social emotional development of children ages birth to five.

Thrive has developed a number of projects to build capacity in early childhood mental health. One example is a professional learning community that brings together university faculty across six disciplines and community practitioners with the goal of embedding infant mental health research theory and practice into curriculum. A Thrive clinician's group also meets monthly to develop skills and receive training in early childhood mental health.

For more information go to: http://www.mcf.org/MCF/whatsnew/

[58] Isaacs, J.B. (2007). *Budgeting for National Priorities: Cost-effective Investments in Children*. Washington, DC: The Brookings Institution

state. Furthermore, offering incentives to providers to practice in rural Minnesota will help to reduce some of the disparities in program availability seen between the metro area and greater Minnesota.

Provide health insurance for low-income children and families, and promote use of existing programs through outreach and awareness

Although Minnesota has a very high number of children and families covered by health insurance, a small percentage of young children still are not covered. Recent legislation has aimed to reduce these disparities in the upcoming fiscal year. Through the State Health Improvement Plan (SHIP), 8700 additional persons will be eligible for MinnesotaCare by decreasing the income requirements to 250 percent of the federal poverty line and reducing sliding-fee premiums.[59] Yet more effort is needed to ensure that all Minnesota children have health insurance coverage. Improving public awareness campaigns and media outreach efforts to uninsured families could bridge the gap. Uninsured families may not be aware of existing programs or may need assistance with navigating the system as application processes can be confusing and intimidating. Increasing presence of information where families in need tend to be, such as churches, public transportation, schools, libraries, courthouses, and parenting education classes are ways to promote public knowledge of Medicaid and MinnesotaCare. Another strategy would be to create public/private partnerships between employers and Medicaid, bridging the gap between public and private insurance coverage through a shared cost system between Medicaid, employer, and employee.

Promote neighborhood-based clinics for well-child, primary care, and immunizations

Few studies have examined the effects of interventions aimed at increasing well-child exam immunization rates. In general, most trials have looked at interventions that use an intensive recall/reminder system and have achieved significant positive increases in well-child exams and immunization rates.[60] Strategies to implement reminder systems through e-mail, posted mail, and phone calls should be adopted by primary care clinics as effective methods to increase both well-child exam and immunization rates.

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[59] *2008 Health Care Reform Summary*. June 2008. Minnesota Department of Health & Minnesota Department of Human Services. Summary of Health Care Reform Bill, Chp. 358, SF 3780.

[60] Hambidge, S.J., Davidson, A.J., Phibbs, S.L., Chandramouli, V., Zerbe, G., LeBaron, C. et al. (2004). Strategies to improve immunization rates and well-child care in a disadvantaged population. *Archives of Pediatric and Adolescent Medicine. 158*, 162-169.

Reminder techniques, however, have not been effective with low-income families as they frequently move or may not have telephone service; thus, making it difficult to maintain contact through reminders letter or phone calls. A multifaceted approach will ensure that all populations receive well-child exams and immunizations according to recommended schedules. One strategy is to promote the development of neighborhood-based clinics for well-child, primary care, and immunizations. This is especially important in greater Minnesota where rates for well-child exams and immunizations are significantly less than the metro area.

Along with neighborhood-based clinics, it is important to recruit members of various cultural communities to enter the medical profession. Loan repayment programs are one way to increase the numbers of culturally diverse health care providers as well as to increase the presence of providers in rural areas.

Expand outreach services to pregnant women for prenatal care services

Early initiation of regular prenatal care within the first three months has been associated with early identification of risk factors, early treatment of disorders that may affect pregnancy stability, and increased referral rates for smoking cessation and nutrition programs. Mothers who receive early and adequate prenatal care are more likely to establish healthy behaviors and are more likely to obtain preventive care for their infants.[61] In a recent study, researchers found that access to early prenatal care was improved through the use of a mobile clinic van that offered health care to pregnant mothers. This form of outreach resulted in earlier access to regular prenatal care compared to patients who sought care in a typical community center.62 Strategies that use community outreach efforts such as this are of critical importance especially when providing services to difficult to reach populations.

[61] Prenatal Care in the First Trimester. (2006). The Commonwealth Fund.

[62] Edgerley, L.P., El-Sayed, Y.Y., Druzin, M.L., Kiernan, M., & Daniels, K.I. (2007). Use of a community mobile health van to increase early access to prenatal care. *Maternal & Child Health Journal. 11*(3), 235-239.

Special needs and early intervention strategies to improve child and family health and well-being

Young children who are vulnerable to or experience developmental delays can end up substantially behind their peers at kindergarten entry. Early identification of and intervention for special health needs can significantly decrease the need for more costly interventions later in life. Failure to address special needs – physical, emotional, or developmental – can lead to a variety of child and family problems down the road.

Increase the use of standardized developmental screenings in primary care, and integrate behavioral health programs into primary care

Developmental screening helps both parents and health care providers identify children who may need further evaluation for a possible developmental delay. A screening is not an in-depth assessment or test, yet offers valuable information through parent observation and reporting. Although primary care providers see young children at an increased rate due to infant and early childhood well-child exams, most providers do not use a screening tool in their assessment of child development. The American Academy of Pediatrics recommends using a standardized developmental screening instrument at the 9, 12, and 24 or 30-month visits at a minimum. Surveillance is appropriate at all other visits.[63]

Identification and referral for mental health and developmental concerns are lacking in primary care. There is also a lack of mental health professionals who are well-educated in early childhood mental health and available for follow-up on referrals, particularly in greater Minnesota. Minnesota has been part of a five state demonstration project, Assuring Better Child Health and Development (ABCD II), funded by the Commonwealth Fund. This program has sought to improve identification, referral, and follow-up for early childhood mental health issues through collaboration between health and mental health providers who received specialized training in early childhood mental health. Results from this program should be shared and integrated at both the clinical and state levels.

[63] Hagan, J.F., Shaw, J.S., & Duncan, P.M. (Eds.). (2008). *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 3rd ed*. Elk Grove, IL: American Academy of Pediatrics.

Expand the medical home initiative and co-locate services for families with children with special health needs

"Medical home" refers to a model of health care delivery that focuses on a family-centered partnership to deliver high quality health care to children and families.[64] In a medical home model, each child has a primary care provider who works together with the family to create a partnership in health that starts at birth and helps to transition into adulthood. This model is particularly important for children with special health care needs, which are often complex and extend across many disciplines, including health care, child care, education, insurance, and social services. This model can be especially effective for primary care providers who see low-income and racially diverse populations in their practice as a way to address disparities in Minnesota.

Medical home has also been associated with decreased medical costs as services are not duplicated or missed. One way to facilitate this is through co-location of services. The health care system is often confusing for families; simplifying the system by having multiple services at one site helps families feel that more of their needs are being met. Co-location of services not only improves access and coordination of services for families, but also providers gain a better understanding of their partners' practices.[65]

Increase support for programs available to children with special health care needs within their homes or neighborhoods

An interagency team, including the family and providers, develop an Individualized Family Service Plan (IFSP) which is the heart of early childhood intervention. The IFSP is a plan of services and support provided to the child and his or her family and must be initiated within 45 days of referral to Early Intervention Services. The IFSP is used as the coordinating action plan of services for children from birth to age 2. Children with special needs should receive services in natural settings and places where typically-developing children and their families would be found, so that they will not be denied opportunities that same-age peers have. Examples include home, child care settings, and school. In addition to increasing program services in the natural environment, the IFSP should be user-friendly so that families and providers alike fully understand what is needed to promote the development of the child; age-appropriate, and considerate of cultural variations and families who are English Language Learners.[66]

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[64] American Academy of Pediatrics. National Center of Medical Home Initiatives for Children with Special Needs. Retrieved from http://www.medicalhomeinfo.org

[65] Ginsburg, S. (2008). Colocating Health Services: A Way to Improve Coordination of Children's Health Care? *Commonwealth Fund pub. 1153, vol. 41.*

[66] Scott-Little, C., Kagan, S.L., Frelow, V.S., & Reid, J. (2008). *Inside the Content of Infant-Toddler Early Learning Guidelines: Results from Analyses, Issues to Consider, and Recommendations*. University of North Carolina-Greensboro. Teachers College, Columbia University.

Special needs and early intervention strategies to improve system quality and access

Increase outreach staff and public awareness for Early Childhood Screening at age three and four

Early Childhood Screening is a requirement for school entrance in Minnesota. School districts are required to provide this service; however parents may choose to opt out if screening was performed by a health care provider or due to conscientious objection. The majority of children screened are 4 years old, just prior to kindergarten entrance. Earlier screening would help to identify potential problems and increase referral rates for Early Intervention Services. Although the number of 3-year-olds screened has increased from 30 percent in 2006 to 38 percent in 2007, continued expansion of Early Childhood Screening is important in order to identify children with potential delays that may impair learning, growth, or development.[67] Public school districts are encouraged to target children ages 3 to 4 based on higher reimbursement rates at these ages. Expanding the use of public awareness campaigns that target families with 3-year-olds can further increases participation rates for Early Childhood Screening. Suggested sites include primary care clinics, ECFE and other parenting education, home visiting, and media outlets.

SPOTLIGHT ON COMMUNITIES

Screen at 3: A joint campaign of the Minneapolis Public Schools, the City of Minneapolis and Hennepin County to encourage more Minneapolis children to have their early childhood screening done at age three, so any learning or health problems can be identified earlier and help provided sooner.

Outreach flyers for **Screen at 3** are available in 4 languages: English, Hmong, Somali, and Spanish and direct parents to call 612-348-TOTS to make an appointment for screening.

For more information: http://www.ycb.org/SchoolsReadiness.asp

[67] Minnesota Department of Education. (2008). Early Childhood Screening, FY2007.

Appendix

Data tables underlying maps

Availability of data measuring indicators

Data tables underlying maps

A1. Indicator measures by Census area

Public Use Microdata Area (PUMA)	Percent of families with children under age 6 with incomes above 200% of poverty	Percent of households with children under age 6 who have affordable housing
100	66.8%	81.3%
200	49.8%	67.2%
300	52.4%	57.4%
400	52.6%	62.0%
500	56.8%	60.2%
600	57.7%	63.7%
700	73.9%	81.3%
800	66.4%	63.3%
900	77.8%	60.9%
1001	88.8%	68.0%
1002	64.0%	55.8%
1100	82.7%	61.6%
1201	77.2%	65.7%
1202	80.5%	56.6%
1203	84.3%	66.4%
1301	21.4%	33.9%
1302	60.7%	59.7%
1303	52.8%	74.9%
1401	97.8%	75.2%
1402	75.7%	69.6%
1403	72.9%	63.5%
1404	87.3%	65.8%
1405	92.7%	82.1%
1406	52.2%	59.9%
1501	61.1%	50.1%
1502	28.1%	40.9%
1601	85.4%	67.2%
1602	81.9%	81.4%
1700	76.6%	77.0%

Note: *Minnesota PUMA boundaries are shown here: http://ftp2.census.gov/geo/maps/puma/puma2k/mn_puma5.pdf.*

A1. Indicator measures by Census area (continued)

Public Use Microdata Area (PUMA)	Percent of families with children under age 6 with incomes above 200% of poverty	Percent of households with children under age 6 who have affordable housing
1800	68.4%	69.6%
1900	51.6%	68.5%
2000	63.9%	54.3%
2100	61.8%	55.5%
2200	52.5%	63.5%
2300	69.4%	64.2%
2400	69.9%	79.1%
2500	62.1%	74.3%

Note: *Minnesota PUMA boundaries are shown here: http://ftp2.census.gov/geo/maps/puma/puma2k/mn_puma5.pdf.*

A2. Indicator measures by county

County	Children under age 8 placed in out-of-home care per 1,000	Percent of tested children with elevated blood-lead levels	Teen births per 1,000 females age 15-19	Percent of WIC participants ages 2-4 classified as overweight	Percent receiving adequate or better prenatal care
Aitkin	28.7	1.4%	35.1%	9.0%	76.6%
Anoka	7.8	0.9%	20.4%	11.7%	78.3%
Becker	28.9	0.6%	29.5%	15.0%	80.0%
Beltrami	24.1	0.7%	54.7%	18.4%	60.5%
Benton	9.2	0.6%	36.3%	12.8%	86.1%
Big Stone	10.4	0.0%	NA	NA	71.7%
Blue Earth	13.8	1.0%	16.5%	10.9%	86.8%
Brown	9.5	0.4%	21.8%	12.5%	89.7%
Carlton	9.8	1.1%	31.9%	9.8%	80.7%
Carver	4.6	0.9%	12.7%	10.5%	88.5%
Cass	21.8	1.1%	61.3%	13.9%	56.3%
Chippewa	3.1	2.1%	35.2%	14.3%	88.0%
Chisago	6.8	0.5%	20.2%	11.0%	85.3%
Clay	11.9	0.3%	15.3%	12.4%	75.7%
Clearwater	7.4	0.0%	43.0%	18.6%	60.7%
Cook	5.2	3.0%	NA	NA	62.2%

A2. Indicator measures by county (continued)

County	Children under age 8 placed in out-of-home care per 1,000	Percent of tested children with elevated blood-lead levels	Teen births per 1,000 females age 15-19	Percent of WIC participants ages 2-4 classified as overweight	Percent receiving adequate or better prenatal care
Cottonwood	12.7	3.6%	24.7%	7.5%	76.1%
Crow Wing	15.3	0.8%	37.5%	7.1%	65.5%
Dakota	3.5	1.0%	19.3%	11.9%	78.8%
Dodge	3.2	0.0%	27.4%	10.0%	90.8%
Douglas	8.9	0.6%	23.3%	8.7%	82.2%
Faribault	7.5	1.8%	30.2%	13.2%	90.3%
Fillmore	2.5	2.8%	21.1%	10.7%	74.5%
Freeborn	15.8	1.6%	42.0%	12.4%	84.7%
Goodhue	9.5	0.4%	26.4%	14.1%	83.2%
Grant	14.8	0.0%	NA	12.0%	83.1%
Hennepin	10.4	2.2%	31.3%	15.4%	77.2%
Houston	8.1	2.5%	20.1%	8.2%	73.7%
Hubbard	13.2	0.0%	31.5%	10.7%	63.2%
Isanti	17.3	0.8%	30.6%	11.6%	84.9%
Itasca	13.6	1.4%	27.2%	13.2%	75.5%
Jackson	12.1	4.3%	17.4%	NA	83.5%
Kanabec	6.4	0.5%	31.3%	10.6%	78.4%
Kandiyohi	13.4	1.7%	46.2%	12.2%	82.1%
Kittson	7.4	5.9%	NA	NA	77.1%
Koochiching	12.9	1.8%	20.8%	16.6%	62.6%
Lac qui Parle	4.3	4.7%	NA	NA	72.7%
Lake	17.6	0.6%	22.1%	13.5%	74.7%
Lake of the Woods	NA	3.2%	NA	NA	79.4%
Le Sueur	3.7	0.6%	24.6%	17.7%	84.6%
Lincoln	9.0	0.0%	NA	NA	51.7%
Lyon	2.0	0.5%	18.2%	13.4%	66.0%
McLeod	13.2	1.4%	33.5%	21.4%	84.9%
Mahnomen	56.5	1.1%	87.9%	15.8%	70.1%
Marshall	NA	0.0%	NA	10.0%	82.2%
Martin	5.2	1.0%	33.1%	11.1%	84.8%

A2. Indicator measures by county (continued)

County	Children under age 8 placed in out-of-home care per 1,000	Percent of tested children with elevated blood-lead levels	Teen births per 1,000 females age 15-19	Percent of WIC participants ages 2-4 classified as overweight	Percent receiving adequate or better prenatal care
Meeker	7.1	1.5%	32.9%	18.3%	77.5%
Mille Lacs	10.2	1.7%	39.0%	11.6%	73.3%
Morrison	13.7	0.5%	31.9%	9.2%	85.2%
Mower	8.2	1.6%	45.6%	13.3%	68.3%
Murray	6.4	2.6%	28.8%	11.3%	74.3%
Nicollet	7.6	1.2%	17.8%	12.9%	88.2%
Nobles	6.5	1.4%	56.7%	22.1%	73.2%
Norman	5.4	1.6%	NA	NA	70.0%
Olmsted	4.4	0.9%	25.3%	11.5%	89.5%
Otter Tail	7.5	1.2%	24.3%	10.6%	88.2%
Pennington	13.6	0.0%	25.0%	12.5%	81.6%
Pine	10.5	2.5%	34.8%	7.0%	71.3%
Pipestone	5.3	1.8%	34.7%	15.9%	65.6%
Polk	12.3	1.1%	31.0%	10.9%	59.4%
Pope	9.7	0.7%	NA	16.5%	76.8%
Ramsey	9.3	3.2%	38.4%	14.1%	79.3%
Red Lake	22.7	0.0%	NA	NA	63.6%
Redwood	7.7	0.8%	20.0%	14.5%	76.1%
Renville	2.9	3.4%	36.2%	14.4%	78.4%
Rice	5.8	1.0%	20.4%	15.4%	76.4%
Rock	9.1	2.9%	21.3%	NA	50.4%
Roseau	2.6	0.0%	27.2%	12.4%	75.1%
St. Louis	17.8	1.5%	23.7%	12.3%	79.5%
Scott	4.4	1.0%	18.4%	8.4%	76.3%
Sherburne	3.9	0.3%	42.4%	11.8%	80.6%
Sibley	3.0	3.4%	37.0%	11.2%	78.2%
Stearns	9.2	0.7%	17.6%	10.2%	83.7%
Steele	5.7	0.5%	34.1%	12.1%	81.7%
Stevens	3.6	3.6%	NA	8.9%	77.1%
Swift	7.4	1.6%	27.1%	9.8%	87.1%

A2. Indicator measures by county (continued)

County	Children under age 8 placed in out-of-home care per 1,000	Percent of tested children with elevated blood-lead levels	Teen births per 1,000 females age 15-19	Percent of WIC participants ages 2-4 classified as overweight	Percent receiving adequate or better prenatal care
Todd	7.8	1.5%	34.6%	12.3%	69.4%
Traverse	NA	1.8%	NA	NA	61.9%
Wabasha	5.1	0.9%	24.6%	13.2%	86.6%
Wadena	12.7	1.1%	35.0%	11.3%	74.7%
Waseca	6.7	0.9%	35.3%	11.0%	82.5%
Washington	2.5	0.7%	14.8%	10.4%	87.6%
Watonwan	6.5	2.6%	48.0%	14.2%	73.0%
Wilkin	5.2	1.1%	NA	3.8%	88.7%
Winona	3.5	1.1%	14.0%	15.4%	80.5%
Wright	8.4	0.5%	22.4%	8.3%	80.1%
Yellow Medicine	8.6	3.5%	21.2%	16.1%	77.8%

A3. Percent of enrollment in child care with an indicator of quality by Economic Development Region

Economic Development Region	Region Number	Infants and toddlers	Preschool-age
Northwest	1	9.3%	28.2%
Headwaters	2	7.1%	28.5%
Arrowhead	3	10.4%	33.0%
West Central	4	12.6%	24.5%
North Central	5	7.1%	6.3%
Southwest Central	6E	12.2%	24.8%
Upper Minnesota Valley	6W	8.7%	8.7%
East Central	7E	9.0%	28.8%
Central	7W	11.2%	12.3%
Southwest	8	6.0%	11.3%
South Central	9	9.0%	20.9%
Southeast	10	9.5%	19.9%
7 County Twin Cities	11	21.6%	24.5%

Note: *Economic Development Region boundaries are shown here: http://www.deed.state.mn.us/lmi/tools/areamap/edr.htm.*

Strengths, limitations, and availability of data measuring indicators

Indicator	Strengths, limitations, and availability
Children entering kindergarten proficient across five learning domains	The *Minnesota School Readiness Study* is conducted annually by MDE. It does not report school readiness results by income or race/ethnicity. The study is set up to be representative of the state, not regions or smaller localities. The public use data are classified as private. Requests for summary data are subject to a fee. Data should be interpreted with caution because the sampling process allows for voluntary participation by the schools, which may lead to non-response bias. In additions, the published findings are estimates subject to sampling error.
Families with young children with incomes greater than 200% of poverty	The U.S. Census Bureau conducts the American Community Survey annually. Requires analysis of microdata. Estimates are subject to sampling error.
Families with children who have affordable housing	The U.S. Census Bureau conducts the American Community Survey annually. Requires analysis of microdata. Estimates are subject to sampling error.
Children in out-of-home placement	DHS publishes *Minnesota's Child Welfare Report* annually. However, it does not report out-of-home placement of young children by income and only reports placement by race/ethnicity for 0-21 year-olds.
Children with elevated blood-lead levels	MDH publishes a *Blood-lead Surveillance Report* annually. Data represent tested children, not the child population.
Teen birth rates and subsequent births to teen parents	MDH's vital statistics monitoring system ensures accurate and timely data.
Rates of obesity for 2-4 year olds	Data available for WIC participants only. MDH provides detailed information upon request.
Children with possible vision and hearing problems identified and referred through Early Childhood Screening	MDE publishes results annually. School district-level data are available but not compiled at the state level, preventing inclusion in this report. Data are not readily available by income or race/ethnicity.
Children with possible social-emotional problems identified and referred through Early Childhood Screening	MDE publishes results annually. School district-level data are available but unassembled, preventing inclusion in this report. Data are not readily available by income or race/ethnicity.
Children referred for possible developmental problems at Early Childhood Screening	MDE publishes results annually. School district-level data are available but unassembled, preventing inclusion in this report. Data are not readily available by income or race/ethnicity. As access to Early Childhood Screening improves, it is expected that more children will be referred for possible developmental problems; after full access is achieved the indicator measure is expected to decrease, representing improved health.
Children with special health care needs with 'all needs' met for specific health care services	The National Survey of Children with Special Health Care Needs has been conducted twice, in 2001 and in 2005-06. It draws representative samples large enough for statewide estimates regarding children under age 6, but not locally. Statewide estimates can only be disaggregated by income and race/ethnicity for children under age 18. Estimates are subject to sampling error.
Children with disabilities who demonstrate improved knowledge and skills and demonstrate the use of appropriate behaviors	MDE will publish disaggregated IDEA Part B and C data in future years.

Indicator	Strengths, limitations, and availability
Children ages 0-2 and 3-4 enrolled in quality early childhood programs	Child care enrollment reported to CCR&Rs may duplicate children who attend more than one site and may count two children who attend part time as one child. Therefore, enrollment is a proxy measure that more closely represents child care spaces than actual children.
Participation rates in ECFE and other parent education and support models	MDE publishes results annually. School district-level data are available but unassembled, preventing inclusion in this report. Because there is not a statewide ECFE database, MDE cannot unduplicate the participation counts; however, MDE believes the duplication across school districts is likely quite low.
Businesses offering living wages and paid parental leave	An alternative measure, employed parents of infants using parental leave, is available annually from the Current Population Survey. Requires analysis of microdata. Estimates are subject to sampling error.
Children being served through publicly funded mental health services compared to estimated need	Systems for monitoring early childhood mental health needs and services are in early stages of development. DHS will provide detailed statistics from Minnesota Health Care Programs (MHCP) administrative data upon request.
Children and families covered by health insurance	The Minnesota Health Access Survey is conducted every few years. MDH will provide detailed information about young children upon request. Estimates are subject to sampling error.
Children who receive regular well-child examinations and immunizations	The Minnesota child health module of the Behavioral Risk Factor Surveillance System (BRFSS) is not conducted regularly, does not yield sufficiently detailed information, and is subject to sampling error. The Minnesota Immunization Information Connection (MIIC) does not publish immunization rates statewide or detailed by income and race/ethnicity. The Retrospective Kindergarten Survey of immunizations was discontinued in 2001.
Pregnant women receiving early and regular pre-natal visits	MDH's monitoring system ensures accurate and timely natality data, but income and race/ethnicity details are not published annually.
Children participating in Early Childhood Screening	MDE publishes results annually. School district-level data are available but unassembled, preventing inclusion in this report. Data are not readily available by income or race/ethnicity.
Children birth to 3 who are served through Part C Early Intervention	MDE will publish disaggregated IDEA Part C data in future years.
Newborns identified with hearing problems and diagnosis by 3 months of age; and enrolled in early intervention by 6 months of age	Future data releases from MDH will reflect the prevalence of hearing problems in the population and adherence to the 1-3-6 plan.