



Vermont Department of Health

Assessment of the Strengths and Needs of the Maternal and Child Health Population

Created for the FY06 MCH Title V Block Grant Application

Submitted to

Maternal and Child Health Bureau

Submitted by



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EXECUTIVE SUMMARY:

For the past several cycles of Title V MCH assessments, Vermont has submitted a needs assessment using a traditional population health needs and organization capacity assessment approach. Recent deliberations within the Maternal and Child Health Bureau's New England Region 1 and with MCHB federal leaders have encouraged states to explore the possibility of using a strengths-based approach to understanding the current conditions of maternal and child health. Thus, with the 2005 MCH assessment, Vermont has incorporated both a strengths and needs analysis approach when conducting an assessment of the women, children and families who are within its citizenry.

Therefore, this information gathering and analysis process was carried out under the vision of a Vermont Maternal and Child Health Strengths and Needs Assessment – not *just* a population-based needs assessment. Vermont was interested in attempting to apply recent and historical “assets” research to the process of a population health assessment. Assets literature has described methods of describing strengths within an individual, a family, or a community as a key approach for promoting strengths and empowerment. The persons are considered in control of their own health or community and traditional service providers should look to methods of empowering those who are served, instead of “fixing their problems.” Emphasis is on the social connectedness within a group that creates “community” and can be used to build on common strengths. The resulting document reflects this approach, but must be considered only a beginning for guiding public health theory and action within a strengths promotion context for the next five years.

The 2005 Strengths and Needs Assessment consisted of several information gathering processes, such as a review of the literature and secondary source material, a review of national and state qualitative and quantitative data, and a series of key informant interviews with Vermont's MCH stakeholders representing obstetricians, policy makers, advocates, family services providers, home health agencies, and state program administrators. The population data was then analyzed according to the three population groups of pregnant women and infants, children and adolescents, and children with special health needs. The organizational capacity information was critiqued according to the four MCHB pyramid levels of direct health services, enabling services, population based services, and infrastructure building services.

The MCH Advisory Committee, convened for the purpose of the MCH Assessment, reviewed the data and chose Ten Priority Goals which are intended to reflect a strengths based approach to public health planning. The process for choosing these Goals involved a qualitative iterative discussion using ten agreed-upon guidelines (refer to Section 1.1.) The related performance measures are intentionally worded to reflect a combination of both the traditional approach of program evaluation or “deficit” wording and also the newer approach of strengths-based wording. Measures were chosen to reflect the existing work of VDH programs or to begin measurement of initiatives that are in the beginning stages of implementation. The Advisory Committee chose overall goals and performance measures that reflect the broad scope of MCH public health – hence the array of VDH programs such as environmental, CSHCN, exercise and the built community, etc. Measures also reflect our newer partners in MCH, such as mental health and early childhood. Some measures are population based and some are specific for program data or Medicaid data. Also, measures were chosen to reflect a new aspect of MCH

programming, and not to reiterate what might already be monitored via Title V-required national performance measures or outcome data. Finally, the measures reflect our collaborative working relationships within New England: our common measure with Maine from the YRBS and our pending measure for all of Region 1 for early education. The Advisory Committee will meet periodically throughout the 2005-2006 year to further refine the wording of the State Performance Measures for inclusion in the Title V Application for FY07. The other role for the ongoing activities of the Advisory Committee will be to provide a forum for communication among the member organizations to help in coordinating state and local activities that will effect the achieving of the Ten Priority Goals. The Ten Priority Goals and Performance Measures are as follows:

1. Pregnant women and young children thrive:
 - > Percent of women reporting tobacco smoking during the last trimester of pregnancy
2. Children live in stable, supported families
 - > Region 1 early ed indicator. Vermont has committed to create an asset based indicator that describes an element of early childhood and health status. This will be a common indicator with MCHB Region 1 and determined with consultation with UCLA Center for Healthier Children, Families, and Communities.
3. Youth choose healthy behaviors and will thrive.
 - > The percent of youth in grades 8-12 who have attempted suicide in the last twelve months
4. Women lead healthy and productive lives.
 - > Prevalence of women ages 18-44 whose BMI is greater than or equal to 30.
5. Youth successfully transition to adulthood.
 - > The percent of youth who feel like they matter to people (YRBS.) Common indicator with the state of Maine, possibly to be adopted by other Region 1 states.
6. Communities provide safety and support for families.
 - > The percent of Vermont towns with at least two formalized public recreational services for residents.
7. All children, including CSHN, receive continuous and comprehensive health care within a medical home.
 - > The percent of providers of care to CSHN who perform care coordination as evidenced on the Medicaid claims codes.
8. All children receive continuous and comprehensive oral health care within dental home.
 - > Percent of children using Medicaid who use dental services in one year time period.
9. Children and families are emotionally happy.
 - > Percent of children served jointly by mental health, DCF, and special education (Service Integration Ratio – presently being developed by Mental Health)
10. Children and families live in healthy environments.
 - > Percent of one-year olds tested for lead poisoning.

SECTION 1: CONDUCTING A STRENGTHS & NEEDS ASSESSMENT

INTRODUCTION

For the past several cycles of Title V assessments, Vermont has submitted a needs assessment using a traditional population health needs and organization capacity assessment approach. Recent deliberations within New England Region 1 and with MCHB leaders encouraging states to explore the possibility of using a strengths-based approach to understanding the current conditions of maternal and child health provided an opportunity for Vermont to incorporate this philosophy and approach in to the 2005 Title-V MCH assessment.

Health and social work researchers have identified several benefits to using a strength-based approach. John MacKnight has pointed to the traditional service system approach of focusing on community weaknesses instead of supporting strengths which empower communities. Research by the Search Institute and Peter Benson have delineated developmental assets for different life stages such as infancy, childhood, and youth. These assets are powerful influences on behavior – they can both protect from risk-taking behavior while promoting positive attitudes and behavior.¹ Therefore, contrary to a needs-based framework that tends to focus on deficits, a strength-based approach focuses on community; measures positive outcomes allowing for community and individuals to build from within; is transparent; and, helps to mobilize communities. By focusing on community, a strengths-based process starts with what is present in the community, the capacities of its residents and workers, and the associational and institutional base of the area—and not with what is absent or problematic, or what the community needs.

A strength-based approach is internally focused, concentrating on the agenda-building and problem-solving capacities of local residents and associations. There is an implicit understanding that children, families, communities, and systems are more likely to change for the better when the context for these actions includes their strengths, assets, and resiliency (measuring positive outcomes). Such an approach is transparent and non-hierarchical, taking place only when local community people are committed to investing themselves and their resources in the effort. It is relationship driven, with an emphasis on building and supporting functional relationships. When communities recognize and map their assets they can effectively mobilize their assets for positive, community change.

1.1 VERMONT'S APPROACH

Vermont is fortunate to have a strong maternal and child health community composed of a diverse group of committed partners. The Vermont Department of Health (VDH) has benefited from this commitment, and over the past several decades has nurtured this relationship and built from it a sound MCH foundation and system. This foundation enabled the successful implementation of a strengths-based approach to the 2005 assessment process. Instead of relying solely upon data to drive the assessment process and subsequent planning activities, the strengths-based approach provided an opportunity to engage partners and value

¹ (www.search-institute.org)

their unique perspectives, contributions and assessment of the state of MCH in Vermont. Therefore, the 2005 assessment consisted of three main components: 1.) a review of the literature and secondary source materials; 2.) a review of state and national data; and, 3.) a series of key informant interviews with MCH stakeholders representing obstetricians, policy makers, advocates, family service providers, home health agencies, and state program administrators.

The purpose of the literature and secondary source materials review was to learn more about how other state MCH programs used a strengths-based approach in their assessment process as well as to identify trends in MCH planning and implementation activities, and innovations. As with all assessments, understanding state and national data is intrinsic to good planning and policy decision-making. As a result, the assessment relied primarily upon data available through the Department of Health, however utilized data from the Departments of Employment and Training, Education; as well as the Agency of Human Services to access social and economic data to create a context for the lives of the populations maternal and child health programming prioritize: pregnant women, mothers, children, children with special health care needs and infants. By accessing multiple data sources, the assessment was able to address the determinants of health: biological, behavioral, environmental and social, hence trying to create a comprehensive assessment.

Qualitative data in the form of surveys, focus groups, and interviews offered other key information to capture MCH population strengths and needs. Data from such sources as the National Survey, PRAMS, Parent to Parent surveys, focus groups with parents of children with special health care needs, and focus groups on dental health service utilization data added to assessments of both sub-population status and service systems' strengths and deficits. Qualitative data such as focus groups and key informant interviews can be considered as the stories behind the data. Stories help explain and animate what the numbers are saying, becoming another source of valuable data—qualitative data. Stories aid in describing public health issues that are not yet able to be measured by quantitative data, and point to the need for new efforts by surveillance systems and researchers. In order to hear qualitatively some of these stories, the Vermont Title V program identified key informant interviews with Vermont's MCH stakeholders as the appropriate methodology.

The goal of the key informant interviews was to hear directly from stakeholders their perspective on the state of MCH in Vermont, both its strengths and grand challenges. A total of seventeen key informant interviews were conducted with family service providers, public health nurses, MCH home health nurses, advocates, policy makers, quality improvement and systems change organizations, obstetricians and pediatricians to document the qualitative data. Stakeholders were identified by Vermont Department of Health staff and asked to participate through a formal letter of request. The interview guide was developed based on a review of assessment tools from other state MCH programs including Maine and Washington. Ultimately, the assessment tool was comprised of six broad questions requiring up to 60 minutes of discussion to complete (Appendix A). The goal of the key informant interviews was to incorporate a range of perspectives in the strengths and needs assessment in order to better understand the:

- State of maternal and child health (MCH) in Vermont presently;
- Stakeholders' goals for MCH in Vermont;
- Strategies for meeting these goals;

- Grand challenges for MCH in Vermont;
- Ability of the state to meet these challenges; and,
- Strengths of the MCH system in Vermont.

In addition to interviewing selected key informants, these questions were put before the twelve statewide MCH Coalitions. Each Department of Health district has a Maternal and Child Health Coalition that consists of stakeholders in their respective districts. For years, these coalitions have articulated the strengths of their communities and tackled the needs of the families in their communities. Each coalition was asked to answer the key informant questions, and their answers are reflected in the report.

Appreciating the value of the strengths philosophy, Vermont's decision to conduct a strengths and needs assessment resulted in the articulation of Ten Priority Goals to be used to guide MCH public health planning and programming for the next five year Title-V cycle. Keeping true to the spirit of a strengths-based approach, the Advisory Committee chose to select Ten Priority *Goals* in stead of Ten Priority *Needs*. The terminology allows for assessment and planning activities to use the framework of "needs", while more fully incorporating the concept of positive action steps rather than assisting with deficits.

The process used to determine the Ten Priority Goals was for the MCH Planner and the Title V strengths and needs assessment Advisory Committee to evaluate the information obtained through the quantitative and qualitative data gathering process. The advisory committee was made up of representatives from a wide variety of programs and offices, such as Dental Services, Children with Special Health Care Needs (CSHCN), Department of Health Divisions of Health Improvement, Community Public Health, Mental Health, Office of Drug and Alcohol Abuse, Department of Children and Families, BBF (ECCS), Environmental, etc. An iterative process of discussion using common guidelines, expert knowledge, and the testing of ideas was used to create the list of goals and related measures.

The following questions guided the Advisory Committee in their evaluation of the data:

1. Consider concepts of strengths/needs within the context of population or system assets in addition to deficits.
2. Consider the strengths/needs within the context of status of Vermont MCH population status as compared with objectives, U.S. population and rank within specific categories.
3. Consider the status within VDH mission/priorities and other planning initiatives.
4. Consider within other VDH program priorities.
5. Consider within priorities of VDH partners (state, local, governmental and nongovernmental).
6. What health issues best fit the unique role of the Vermont Department of Health – such as emerging issues, statewide health issues for MCH population?
7. What health issues does VDH do best with?
8. What health issues would respond best to VDH actions within the context of coalitions or initiatives with our partners?
9. What health issues would respond to VDH working with new partners?
10. Consider population strengths and needs within the context of social determinants of health.

The following report details the information used to assess the strengths and needs of Vermont's MCH population and also to assess the systems' capacity to support the women, children and families living in the state. The Ten Priority Goals and related measures are summarized in Section 5. Ongoing updates to this report, especially information about the progress made in the philosophy and measurement of assets and deficits will be supplied in future Title V annual reports and grant applications.

SECTION 2: STRENGTHS & NEEDS ASSESSMENT PARTNERSHIP BUILDING AND COLLABORATION

Since 2002, with the election of a new governor and new appointments in the administration, state government has undergone substantial changes; among them was government reorganization, most notably within the Agency of Human Services. The Agency of Human Services has gone from six departments and two offices to four departments and one office (see Appendix B). The Agency of Human Services Blue Book 2005, a progress report published by the state, described the past year as a “structural change within the Agency”, a time during which the state has “moved from the inquiry phase of reorganization to implementation. Departments and Offices have been merged or realigned for more efficiency and to provide better and more streamlined access to services.”² The hiring of twelve Field Directors was one example illustrative of the state’s strategy to improve efficiency and access to services. These Field Directors are located in each service district, focusing on “issues of access, service coordination, accountability, and the overall effectiveness of service delivery in each region.”²

As part of the planned reorganization, the programs of Healthy Babies, Kids and Families, and the Family Infant Toddler Program (Part C) have been moved to the newly created Department for Children and Families. In addition, the mental health services of the Department of Developmental and Mental Health Services moved to the Department of Health (Appendix C). This move has certainly created opportunities for strengthening lines of communication and coordination of activities intra-departmentally, as well as a multidisciplinary approach to service delivery; public health, a population-based field, is now intricately woven into a client-based department. The inclusion of the Mental Health administrative offices and programs within the Department of Health creates the potential for new strategies for supporting planning for mental health services for children and families. Although government reorganization is a time of change and readjustment, there are now numerous opportunities to support the MCH system of care (both service delivery and public health approaches) to further enhance programs, enhance planning and the collaborations with the previously mentioned community of dedicated partners and solidify the strong public-private partnerships.

Overall, there are a wide variety of public health planning, coordination and program activities that have evolved over the past several years which include a range of health and health-related partners both within state government and the community or private sectors. These collaborations work to address public health issues such as primary health care delivery, women’s health, oral health, obesity, emergency preparedness, health in the schools, injury prevention, quality improvement in health care services, etc. Several examples are detailed in this report. It is an underlying principle at the Department of Health and within MCH programs that, to be successful with achieving the goals of any new public health initiative or project, key community and state partners must be involved. Public health issues are complex and require complex solutions that can be implemented through a multidisciplinary approach. With many of these issues, the Department of Health plays the key role of speaking for public health and modeling the unique role that MCH and public health can offer to the population health solution.

² State of Vermont, Agency of Human Services. Blue Book 2005. February 2005.

In 2003 – 2004, momentum began for the development of a new initiative called Building Bright Futures: The Vermont Alliance for Children (TVAC). This initiative, originating from a Governor’s Cabinet for Children and the related long-standing Early Childhood Steering Committee, is described as an “innovative public private partnership comprised of private sector providers, families, business leaders, community members and state government decision makers designed to create a unified, sustainable system of early care, health and education for young children and their families to ensure that all Vermont children will be healthy and successful.”³ TVAC emerged from the previously existing Healthy Child Care Vermont program (through the national Healthy Child Care America) and increased in vision and scope to work with overall systems that support child care providers and services. The MCHB Early Childhood Comprehensive Systems (ECCS) grant has been used to fund a coordinator for ECCS which “doubles” as the TVAC Health Care Committee. Therefore, the intent and funding of the ECCS grant programs are incorporated in to a pre-existing and unfolding movement in Vermont with similar vision: that of supporting and coordinating the wide array of systems and programs that make up the state’s system of care for young children. This collaboration is enhanced due to the common leadership of both the Title V director and his administrative counterpart in Department for Children and Families. In addition, the Title V Director represents the Commissioner of Health on the state’s TVAC Transitional Board.

In Spring 2005, Early Comprehensive Childhood Systems (ECCS) and Building Bright Futures: The Vermont Alliance for Children (TVAC) Health Committee conducted an environmental scan and assessment of Vermont’s early childhood systems. The purpose of the environmental scan and assessment was to identify existing strengths, assets and resources as well as unmet or inadequately met needs related to the health of pregnant women and families with young children. Findings from the environmental scan and assessment informed the work of the Health Committee in developing a comprehensive preventive health plan. The 2005 Title V MCH assessment took place concurrently with the ECCS’ and TVAC’s environmental scan. Each assessment process informed the other through mutual participation on the assessments’ planning committees. Findings from the ECCS and TVAC’s environmental scan are included in this report. Both assessment processes relied heavily upon the input of partners and collaborators.

In 2003, the Vermont Legislature passed Act 53, "An Act Relating to Hospital and Health System Accountability." Under this new law, each hospital in Vermont is required to produce an annual hospital report for its community members detailing hospital performance on a variety of quality, safety and financial measures. The reports also describe ways that community members can learn about and become involved in hospital activities. Act 53 requires each hospital to conduct a Community Needs Assessment describing the health care related needs of the population served by that hospital. In 2004, hospitals across the state complied in a major effort to gather quantitative data on their organizational capacity and also on the health status of the citizens in their service areas. The resulting reports contain a vast array of rich and detailed information on each of Vermont’s health service areas including data on the hospital’s services, procedures, overall capacity, and the needs and desires of the citizens living in its service area. These reports are invaluable for creating a common vision for health care for both the hospital organization and the community’s citizens. Much of this qualitative data mirrors the data gathered from the key informant interviews that will be discussed throughout this report.

³ Fact Sheet. Health Committee, Building Bright Futures (BBF): Vermont’s Alliance for Children. February, 2005

2.1 PARTNERSHIP BUILDING & COLLABORATION FROM THE PERSPECTIVE OF PARTNERS & COLLABORATORS

Partners and collaborators are the best equipped to provide an assessment of partnership building and collaboration. When stakeholders (i.e., partners and collaborators) were interviewed for the Title V MCH assessment and the TVAC environmental scan and asked the very broad question of, “Describe the state of MCH in Vermont currently” unavoidably they discussed partnership building and collaboration and how this work impacts the MCH community and system of care. The value of this conversation with partners and collaborators was that they provided real examples of work that depended upon functional relationships. The following is a summary of these conversations.

During the series of key informant interviews, the majority of stakeholders commented on the strength of the current state of MCH in Vermont presently and attributed its strength to a collaborative, diverse and committed MCH system and community. They described this community as a coalition that works “beautifully”, garnering resources to support new initiatives and showing interest in these initiatives. Its success, many observed, is due to a strong public and private partnership as well as its ability to span a broad spectrum of service providers, policy makers, health care practitioners and organizations that work to improve systems. One key informant discussed the work of the Northern New England Perinatal Quality Improvement Network, as an example of a systems change initiative involving a partnership with community hospitals.

Northern New England Perinatal Quality Improvement Network (NNEPQIN) is a loosely affiliated network of community hospitals in Vermont and New Hampshire that was created around the common use of OBNet, a web-based delivery registry that produces patient reports (such as admission history, delivery note, operative note, pediatric summary, nursing note, discharge summary, and connection to birth certificate). Under NNEPQIN, hospitals came together to develop their own set of policy related recommendations which galvanized a core group to work in the area of obstetrics. A key participant in this group is the Vermont Regional Perinatal Network (VRPN), an organization working out of the University of Vermont (partially funded by Title V) that supports quality obstetrical and neonatal health care services by providing a comprehensive system of educational programs for perinatal health care professionals. Preventive care in new born nurseries is one example of the group’s work.

NNEPQIN and VRPN illustrate the impact of a targeted intervention within the MCH community working to improve systems. Another, and more global yet equally noteworthy, example of primary prevention that many key informants discussed is Vermont’s safety net system including Medicaid, WIC, Healthy Babies, Kids and Families, and other health and public health programs. Key informants noted that all pediatricians in the state accept Medicaid and approximately 96 percent of children in Vermont are covered by health insurance.⁴

Additional examples provided include the decrease in Vermont’s teen pregnancy rates over the past decade; 87 percent of women are receiving prenatal care in the first trimester; high immunization rates; birth outcomes; and an increasing number of youth reporting asset indicators on the Youth Risk Behavior Survey, all of which can be partially attributed to a strong

⁴ Vermont Agency of Human Services. Outcome Based Planning. April 2004

state system and safety net, and (as one key informant noted) Vermont's good early childhood care system, WIC, Healthy Babies, Kids and Families, preschools, schools and community should also be credited. Several key informants addressed these programs and institutions in the context of the work of The Vermont Alliance for Children: Building Bright Futures (TVAC). The work of TVAC, one key informant said, has engaged, once disparate, state agencies including the Department of Health and Department of Children and Families. Data drives the initiatives and collaborations in Vermont and is the method by which a myriad of stakeholders come together to problem solve.

SECTION 3: ASSESSMENT OF STRENGTHS & NEEDS OF THE MATERNAL AND CHILD HEALTH POPULATION GROUPS

Population Overview:

Vermont is located in the northeast region of the United States, a New England state sharing its northern border with Quebec, Canada. It is a rural state with the 2000 census showing a population of 608,827, ranked as 49th in population nationally. Almost all Vermonters are identified as white, although this number decreased slightly over the past ten years - 96.8% in 2000 (vs. 98.6% in 1990). About 2% (14,273) of Vermonters identified themselves as biracial or multiracial and another one half of one percent (3,063) people said they were black. Although, nationally, Hispanics are rapidly growing in numbers as a group, in Vermont they make up only 0.9 % of the population. In addition, close to 1,000 Vermonters identified themselves as Vietnamese in 2000 (compared to 236 in 1990) and the Chinese population doubled to 1,330 during the decade of the 1990's.

The 2000 census revealed several expected trends in Vermont's age distribution. The median age of Vermont residents in 2000 was 37.7, up from 33 in 1990. The population group experiencing the largest increase was the 45-54 age group, with an increase from 10.2% (1990) to 15.4% (2000). The number of people aged 85 and older also increased, from 7,523 (1990) to 9,996 (2000). The numbers of children aged birth to 19 increases slightly to 166,257. However, those children under five years of age decreased, from 41,261 (1990) to 33,989 (2000).

Household composition is changing, also. The number of Vermonters living alone increased by 28% in the past decade, to 63,112. Also, there is an increase in the number of unmarried partners living together – 18,079 (47%). The number of households with married couples living together fell to 52.5% of all Vermont households. Married couples with children younger than 18 (the traditional nuclear family) make up 23.2% of the households in Vermont, a statistic that mirrors national trends.

Vermont was the second fastest growing New England state during the 1990's, as population increased by 8% according to the 2000 census. Of the 251 towns and cities in Vermont, only seven have total populations that exceed 10,000. Vermont's largest city is Burlington, with an estimated population for 2000 of 38,889. Vermont has 14 counties, and one metropolitan statistical area (MSA), the greater Burlington area. The estimated population of this MSA is 166,126, representing approximately 27% of the state's population.

Vermont's governmental structure consists of state government and town/city government, with essentially no county governmental structures, except for certain key services such as the court system. The bicameral legislature is considered a citizen legislature that is in session during January through May each year. Vermont citizens participate directly in town/city government through annual town meetings. Vermont is divided into twelve Agency of Human Services field offices corresponding to the twelve district offices of the Vermont Department of Health. Each Health Department District Office is headed by a District Director which is Vermont's equivalent to a local health official. A recent reorganization has reformed the AHS services to be more autonomous and hence more responsive to the community.

Vermont is a scenic and mountainous state. However, its rural nature presents the issue of sparse populations having ready access to resources and services. Residents living in isolated areas of the state may have special difficulties accessing services and medical care (particularly in the harsh winter months) due to their remote locations and the less than optimal road conditions. Another challenge for the delivery of Title V services is the fact that a sizeable proportion of Vermonters are living either in poverty or are living very near the poverty level. Vermont's poverty rate was 10.1% for 1998-2000, which was 21st lowest among the states. The rate has not changed substantially over the last fifteen years. Of these families who live below the FPL, 24 percent are families with a female head of household. Unemployment rates range from 1.8% for Chittenden County (Vermont's most populous county) to 5.9 percent in Orleans County (Vermont's second most rural county), resulting in a state average of 3.6 % (2000 census.) Five percent of Vermont's population has less than a 9th grade education; eight percent haven't a high school diploma; thirty two percent have a high school diploma or equivalent and eighty-six percent have a high school diploma or higher (2000 census data.)

However, using more detailed data analyses points to the areas where Vermont's MCH population groups are doing well. There are several surveys that monitor the health of the nation and provide reports on each state including the *National Healthcare Quality Report* published by the Agency for Healthcare Research and Quality (AHRQ), *Making the Grade on Women's Health: A National and State-by-State Report Card* published by the National Women's Law Center, and the *National Children's Health Survey* sponsored by the Maternal and Child Health Bureau, U.S. Department of Health and Human Services, with oversight for sampling and telephone interviews by the National Center for Health Statistics of the Centers for Disease Control and Prevention.

AHRQ's *National Healthcare Quality Report* is an annual report, mandated by Congress, which provides a detailed analysis of measures designed to help track health care quality across the Nation. It includes State-level statistics for approximately 100 of these measures.⁵ According to the report, Vermont performs above average in the following areas:

- Percent of women receiving prenatal care in first 3 months of pregnancy (2001, ranked 4th in the nation).
- Percent of women age 18 and over who report they had a Pap smear within the past 3 years (2002).
- Percent of children age 19-35 months who received all recommended vaccines (2002).

Vermont performs average these area of percent of women age 40 and over who report they had a mammogram within the past 2 years (2002).

Making the Grade on Women's Health: A National and State-by-State Report Card assesses the overall health of women at the national and state levels. The *Report Card* is "designed to promote the health and well-being of women in the United States by providing a comprehensive assessment of women's health. It evaluates 34 health status indicators and 67 health policy indicators, and assesses progress, or lack thereof, in reaching key benchmarks related to the status of women's health. The *Report Card* also provides an important overview of key disparities in the health of

⁵ Agency for Healthcare Research and Quality. www.ahrq.gov

women based on race, ethnicity, sexual orientation, disability status, and other facts.”⁶ The Report Card concluded that the nation as a whole and the individual states fall short of meeting Healthy People 2010 goals. The Report Card evaluates twenty-seven benchmarks and of those twenty-seven, the nation as a whole meets only two. The Report Card continues on by adding, “Moreover, the nation fails on nine benchmarks, including indicators measuring women’s access to health insurance, the prevalence of diseases such as diabetes and deaths from coronary heart disease. The nation is so far from the Healthy People goals that it receives an overall grade of “unsatisfactory.”⁶

Although the 2004 *Report Card* ranks Vermont 3rd in nation (with a grade of less than satisfactory) based on numerous social, economic, health and policy indicators, the *Report Card* also states that “in no state do women enjoy overall satisfactory health status, based on the Healthy People 2010 goals. All states missed eight benchmarks, primarily in the key areas that are central to their overall health, such as access to health insurance, level of poverty, and the wage gap between women and men.”⁶ The 2004 *Report Card* identified several findings and priorities including:

- Women need better access to health insurance in order to get the health care they need.
- Access to specific health care providers and services, particularly reproductive health providers and services, is insufficient.
- Preventive and health promoting measures must be more available.
- Disparities and gaps in economic security continue to compromise women’s health because lower income women have more difficulty getting their health care needs met.

The National Survey of Children’s Health (NSCH) is a telephone survey conducted in English and Spanish during 2003 – 2004. The survey provides a broad range of information about children’s health and well-being collected in a manner that allows comparisons among states as well as nationally.⁷ Survey results are weighted to represent the population of non-institutionalized children ages 0-17 nationally, and in each state.

The purpose of the survey is to estimate national and state-level prevalence for a variety of physical, emotional, and behavioral child health indicators in combination with information on the child’s family context and neighborhood environment. Survey findings generate information to help guide policymakers, advocates, and researchers. The survey also provides baseline estimates for federal and state Title V Maternal and Child Health performance measures, MCHB companion objectives for Healthy People 2010, data for each state’s 5-year Title V needs assessment, and complements the 2001 National Survey of Children with Special Health Care Needs by providing data on the health of the general child population.

The survey covers the following topic areas:

- Child and family demographics
- Children’s physical and mental health status
- Health insurance status and type of coverage
- Access and use of health care services
- Medical home

⁶ National Women’s Law Center. Making the Grade on Women’s Health: A National and State-by-State Report Card, 2004. www.nwlc.org

⁷ National Survey of Children’s Health. <http://nschdata.org/DesktopDefault.aspx>

- Early childhood-specific information (0-5 years)
- Middle childhood and adolescent-specific information (6-17 years)
- Family health and activities
- Parental health status
- Parent's perceptions of neighborhood characteristics

Some of the key survey findings include:

- 81.4 percent of Vermont children 0-5 were breastfed for any length of time compared to 72.3 nationally.
- 96.9 percent of Vermont children are currently insured compared to 91.2 nationally and 94.3 percent among US non-Hispanic whites, both significantly different from Vermont.
- 57.8 percent of Vermont children have a personal doctor or nurse from whom they receive family-centered, accessible, comprehensive, culturally sensitive and coordinated health care. This compares to 46.1 percent nationally and 52.8 percent among US non-Hispanic whites, again both significantly different from Vermont.
- 22.7 percent of Vermont children ages 6-11 stayed home alone during the past week compared to 15.9 percent nationally and 16.9 percent of US non-Hispanic white children. Vermont was significantly different from the US population.

While it is invaluable to monitor the progress Vermont makes on a national level, Vermont relies significantly on several reports published by the Department of Health including *Healthy Vermonters 2010* and the *Health Status of Vermonters*. The *Healthy Vermonters 2010* document details the specific Healthy People 2010 objectives that Vermont has prioritized for action. Many of the issues outlined in the Title V Strengths and Needs Assessment are in concert with the *Healthy Vermonters 2010* priorities, such as early prenatal care, access to medical care, insurance adequacy, teen suicide, reduction of dental caries, health education in schools, youth risk-taking behaviors, and preventative health screening for women. In addition, the VDH completed an extensive Vermont State Health Plan in January, 2005, as required by Act 53. The focus of the State Health Plan is on changing Vermont's systems of health care to address the challenges of chronic illness, emphasize prevention, improve quality, and endorse a collaborative care model that recognizes the role of the "patient" as the primary care giver. The plan will be used to guide use of resources, roles for key stakeholders, and implementation of strategies for improving the quality of health care for Vermonters.

In addition, the Agency of Human Services also publishes a document frequently referenced by planners throughout the state. The document, *The Social Well-Being of Vermonters*, reports on the progress Vermont has made on numerous indicators based on a commitment by the Agency and its regional partners to achieving ten outcomes. The outcomes include:

- Families, youth and individuals are engaged in their community's decisions and activities.
- Pregnant women and young children thrive
- Children are ready for school
- Children succeed in school
- Children live in stable, supported families
- Youth choose healthy behaviors

- Youth successfully transition to adulthood
- Adults lead healthy and productive lives
- Elders and people with disabilities live with dignity and independence in settings they prefer
- Communities provide safety and support for families and individuals

The 2004 *Social Well-Being of Vermonters* identified several areas of progress:

- Vermont is third best in the nation in immunization rates for young children. In 2003, 89.5 percent of Vermont children were considered fully vaccinated, the national goal being 90 percent.⁸
- Third best in teen birth rates. In 2000, Vermont's teen pregnancy rate was 19 per thousand (ages 15-17).⁸
- Seventh best in the proportion of cases that collect child support;
- Ninth best in rates of cigarette smoking among adults;
- Fifth best in the proportion of adults getting regular exercise;
- Tenth best in the rate of poverty among elders; and,
- Third and fourth best in rates of violent and property crime, respectively.

Also identified were areas requiring more attention:

- Vermont ranks forty-seventh lowest among states in the percent of pregnant women who smoke.
- Forty-sixth lowest in the percentage of teen motor-vehicle deaths that are alcohol-related;
- Thirty-second lowest in "binge" drinking among adults; and,
- Thirty-third lowest in average annual wages.

Another source of data, The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. PRAMS collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. The goal of the PRAMS project is to improve the health of mothers and infants by reducing adverse outcomes such as low birth weight, infant mortality and morbidity, and maternal morbidity. PRAMS provides state-specific data for planning and assessing health programs and for describing maternal experiences that may contribute to maternal and infant health. Vermont's first analysis of PRAMS data was made available in the summer of 2005 and the information has been used to guide the findings of this assessment.

This section of the strengths and needs assessment examines several social, economic and health indicators; gleans information from secondary source materials including state published reports; and lastly, reflects upon the qualitative data gathered from the key informant interviews to

⁸ Vermont Agency of Human Services. Vermont State Health Plan 2005.

provide important information about the health status of each state MCH population group: pregnant women, women and mothers, infants; children; and, children with special health care need.

3.1 PREGNANT WOMEN, MOTHERS AND WOMEN, AND INFANTS

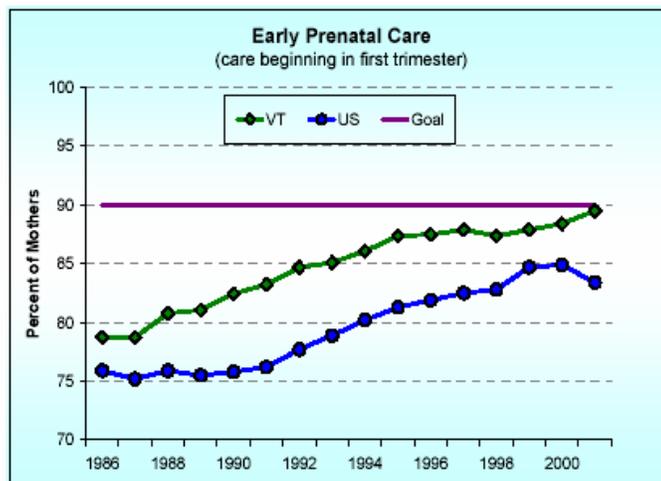
The social and economic back drop for women and children is complex. In 2000, 69 percent of married women with children under six were in the labor force compared to 57 percent nationally. For those with children 6-17 years of age, 80 percent of Vermont women were in the labor force compared to 68 percent nationally. Yet there remains a “gender gap” with respect to wages: women in Vermont earn about 78 percent of what Vermont men earn (median annual earnings).⁹ Almost twelve percent (11.9 percent) of Vermont families received food stamps in 2003 and approximately one in eight Vermont children lives in poverty.⁹

3.1.1 PREGNANT WOMEN

Prenatal Care and Insurance Accessibility

Overall, Vermont has had a strong record in providing access to good prenatal care for pregnant women, and in promoting healthy births.⁹ In 2003, 90.6 percent of women were receiving early prenatal care and only 1.6 percent of Vermont women who gave birth obtained late (after the sixth month of pregnancy) or no prenatal care, compared to 3.5 percent for the nation. In the ten years between 1994-2003, there has been a statistically significant increase in early prenatal care in Vermont.

Figure 1. Early Prenatal Care



Source: VT Dept. of Health

Overall, 86.9 percent of 2001 PRAMS respondents received prenatal care as early as they wanted to. There was variation by age, education, income level and marital status, with younger

⁹ Vermont Agency of Human Services. Social Well-Being of Vermonters. 2005

mothers, mothers with less than a high school education, mothers from households with an annual income less than \$16,000, and unmarried mothers all being less likely to have entered prenatal care as soon as they wanted. Among the women who did not get care as early as they wanted, the most common reasons cited were that women did not know they were pregnant (45.5 percent), and they could not get an appointment with their care provider (38.1 percent). 13.8 percent of these women cited a lack of money to pay for prenatal care and 12.9 percent said their doctor or health plan would not start care earlier. Most mothers surveyed (69.2 percent) received their prenatal care in an MD's office or at an HMO clinic. Younger mothers, mothers with less than a HS education, mothers from households with an annual income less than \$16,000, and unmarried mothers were all more likely to get their prenatal care at a location other than an MD's office or HMO clinic.

The PRAMS survey asks a number of questions regarding the content of discussions the women may have had with their prenatal care provider. The topics least likely to be covered were physical abuse, seatbelt use and illegal drugs, while the vast majority of women (approximately 90 percent) reported having discussions with their prenatal care provider about birth defects screening and what medicines were safe to take during pregnancy.

Breastfeeding

Promoting and supporting breastfeeding has been a strong mission of the Vermont Department of Health and its partners, but remains an area that requires constant and comprehensive approaches to effect significant increases in the number of women who successfully breastfeed their infants. The PRAMS survey found that 77.9 percent of mothers reported that they breastfed their infant at least once. Younger, less educated, poorer and unmarried mothers were all less likely to have breastfed their baby. 67.9 percent of mothers reported that they breastfed their infant for at least four weeks, with the demographic variation being similar to that for whether or not they ever breastfed their baby. This compares to the National Survey of Children's Health which found that 81.4 percent of infants were breastfed at any time which is significantly higher than the US rate of 72.3 and the US non-Hispanic white rate of 74.9 percent. The 2002 Pediatric Nutrition Surveillance data reported the breastfeeding duration rate at 6 months post-partum was 30.4 percent, below the Healthy People 2010 goal of 50 percent breastfeeding at 6 months.¹⁰ Vermont is one of only 6 states that have met the Healthy People 2010 breastfeeding goals for the general population in 2003. While our WIC rates are well above the national average, and have improved greatly in the past 5-10 years, there is still work to do in the lower income population - both with regard to breastfeeding initiation and increasing breastfeeding duration among those who initiate.

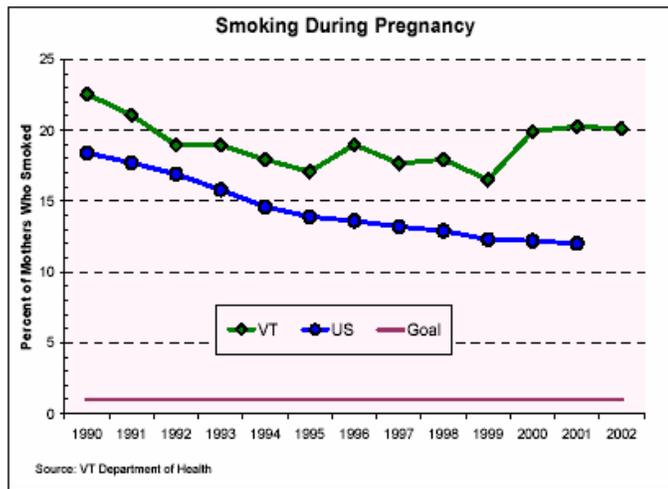
Prenatal Smoking

Smoking during pregnancy is a key area of concern for Vermont that compromises not only the health of pregnant women, but also their infants and children. A variety of VDH programs and other community services are available to support women and their family members as they

¹⁰ Vermont Agency of Human Services. Outcome Based Planning. A report from the VT State Team for Children, Families, and Individuals. April 2004

work to overcome this addiction. In 2003, 18.3 percent of women (self-reported) in Vermont smoked during pregnancy.⁹ There has not been a statistically significant change in percent smoking during pregnancy for the years 1994-2003. However, in 2000, there was a procedural change in calculating the value and it increased from 16.5 percent in 1999 to 19.9 percent in 2000. Smoking during pregnancy is the single most important preventable risk factor for low birth weight in Vermont.¹⁰ It is associated with poor pregnancy outcomes including low birth weight, infant mortality and health problems during childhood.¹⁰

Figure 2. Smoking During Pregnancy

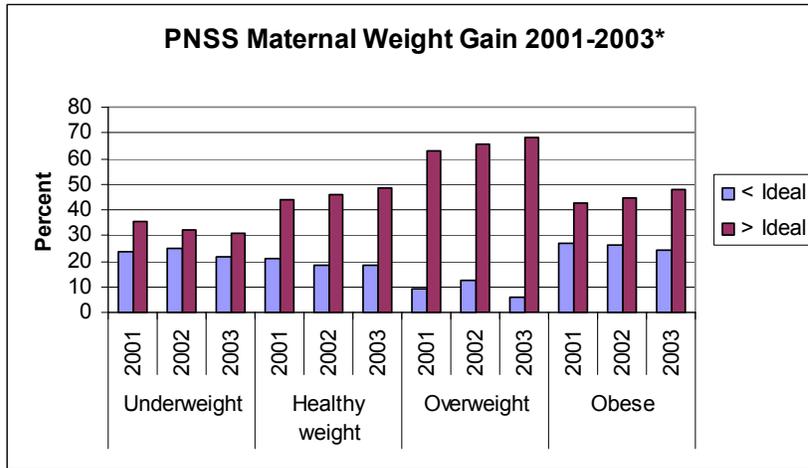


Overweight and Obesity

With the growing concern of obesity nationally, and in Vermont, more attention is now being given to pre-pregnancy weight and maternal weight gain. Information on pre-pregnancy weight is collected on Vermont birth certificates. In 2003, 25.7 percent of Vermont resident mothers who gave birth were obese and 13.2 percent were overweight by pre-pregnancy Body Mass Index.¹¹ Among the women who participate in WIC, (2003 births) 45.4 percent were overweight versus 31.9 percent for the population of women who did not participate in WIC. The following table uses WIC data to illustrate the marked increase in overweight and obese women who are WIC participants. Maternal pre-pregnancy overweight and obesity may increase risk for complications in pregnancy including increased risk of death in both baby and mother. Pre-pregnancy obese women are at risk for pre-eclampsia, gestational diabetes, cesarean delivery, and postpartum infection. The fetus of a pre-pregnancy obese woman is at increased risk for neural tube defects, birth trauma, and late fetal death.

¹¹ 2003 Vermont Statistics Bulletin

Figure 3. PNSS Maternal Weight Gain 2001-2003



Source: *PNSS (WIC) data analyzed by Vermont Department of Health.

Vermont uses multiple venues for interventions that promote positive behavior change including outreach and education through WIC clinics, Healthy Babies, Kids and Families Program, and primary care providers. Alliances with schools and communities are being formed to strengthen these groups ability to support good nutrition programs, promote exercise programs, and educate about the effects of excessive marketing of unhealthy foods.

Teen Births and Pregnancies

There were 92 births to mothers under 18 years of age in 2003, with four to girls aged less than 15, including one birth to a thirteen year old. These births accounted for 1.4 percent of the total. In that same year, the birth rate to teens 15-17 was 6.7/1,000 females, while for 15-19 it was 18.9. The teen pregnancy rate per 1,000 females was 13.8 for those aged 15-17 and for those between 15-19 years the rate was 31.5. For birth and pregnancy rates in both age groups these has been a significant decrease for the ten year period, 1994-2003.

New Families at Risk

Single mothers under 20 with less than a high school education accounted for 5.1 percent of the first births in Vermont in 2003. In Vermont there has not been a statistically significant change over the ten year period of 1994-2003.

Pregnant Women and Alcohol Use

There is little statewide data describing the prevalence of alcohol use or abuse by women who are pregnant. Initial PRAMS data shows that 63.6 percent of women drank some alcohol in the three months before pregnancy and 11 percent drank during the last three months of pregnancy. There is qualitative evidence that alcohol use is widespread, but it is unknown about amounts

taken in or frequency. Mental health programs are available for assisting individuals whose alcohol intake is out of their control, but there are few programs specifically for pregnant women. A collaboration between WIC and the Rocking Horse program has been one strategy for assisting women who abuse alcohol. Screening is performed in the WIC clinics and women are supported in attending the Rocking Horse sessions.

Success Story...

The Rocking Horse Circle of Support is a ten-week community-based psycho-education support group designed for low-income rural pregnant and parenting women. This indicated prevention effort delivers individual level prevention approaches to decrease the personal vulnerability to substance abusing behaviors and increase individual capacity for interrupting these behaviors. The program regards the population holistically and delivers approaches that take into account the combined personal, social, and cultural risk factors. The program is delivered in non-agency community settings by two women, a substance abuse professional and a maternal child health specialist. Program evaluation findings from a pre and post test self-administered survey that used CSAP Core Initiative measures suggests a significant increase in perceptions of risk from ATOD for pregnancy, increased perceptions of handling stress more effectively, and increased awareness of behaviors associated with substance abusing patterns. Other findings suggest the target population were engaged and utilized the program. The results from this evaluation lead us to believe that this intervention-level group may be addressing the substance abuse risks facing these mothers, and may be helping them move away from this risky behavior.

Postpartum Depression

Although questions regarding postpartum depression were not posed to women who participated in PRAMS during the first three years of the survey, approximately one percent of the mothers made some reference to perinatal depression in their comments. Analysis of qualitative data gathered from the survey instrument indicated that postpartum depression was of concern for some women.

The qualitative data suggest that there is a need for more support of women postpartum. Many women stated that they felt alone and/or isolated, anxious, overwhelmed and depressed and spoke of the need for more support, longer hospital stays, and more open discussion (and perhaps the availability of in-hospital counseling) of postpartum depression and other mental health concerns. Vermont does have programming in place that reaches out to new mothers to support their efforts at breastfeeding and answer any questions about their new baby. However, the degree to which postpartum needs is addressed in a variety of venues to ensure that it is not overlooked is a challenge.

PRAMS Story...

"I think the Healthy Babies program is wonderful. When I conceived I was a newly 21 year old college Senior. I was out of state so I moved back to VT. Being pregnant was the greatest time of my life. I had never been healthier. I ate wonderful fresh food, quit drinking and smoking, and took being pregnant very, very seriously. I had a completely text book pregnancy. My baby was exactly 7.5 lbs at birth, I gained exactly 27.5 lbs, and my baby was born wonderfully healthy. He is the most beautiful baby I (and everyone else who sees him) have ever seen. I truly believe that taking all the right pregnancy precautions, as well as my excellent pregnancy diet gave me my gorgeous, happy, well mannered, EASY baby. However I expected to breastfeed, and was disappointed that I wasn't able to. I had a serious postpartum which caused me to take Zoloft, thus making me not able to breastfeed. Thank you healthy babies program!" Sincerely, (signed)

3.1.2 MOTHERS AND WOMEN

Fifty-one percent of the Vermont population, 300,343 individuals, are female, 45 percent of who are of reproductive age (15-44). Vermont women are primarily white and non-Hispanic. Approximately 9 percent Vermont women were uninsured, versus 18 percent nationally. 64 percent of females age 16 and older are in the labor force. Seventy-two percent of Vermont women are residents of rural areas compared to 30 percent nationally. In 1999, 6.3 percent of Vermont families were below poverty level. Of those families, 24 percent were families with female householder and no husband present, 31 percent had related children under 18 years of age, and 49 percent had related children under 5 years of age.¹² Geography, transportation, ability to pay, education, lack of a usual source of primary care, and insurance status all affect a women's ability to obtain needed health care and care for her family. The following discussion details just a few of the issues needing consideration when planning supports for women and their health and their role in caring for their families.

Stress

The PRAMS survey asks mothers whether they experienced any of thirteen different stressors during the year prior to the birth of their baby. These stressors included topics like money trouble, divorce, death of a close relative or friend, drug and alcohol abuse and physical abuse. Most women (71.1 percent) reported at least one stressor, and 6.0 percent reported six or more stressors. Mothers over 35, college educated mothers, mothers from households with an annual income of \$40,000 or more, and married mothers were more likely to report no stressors, while younger, less educated, poorer, and unmarried mothers were more likely to report 3 or more stressors.

Intimate Partner Violence

Intimate partner violence is a pattern of assaultive and coercive behaviors that may include physical violence, psychological abuse, sexual abuse, progressive social isolation, stalking, deprivation, intimidation and threats. Intimate partner violence has a significant, negative impact on the physical and mental health of victims/survivors and their children. Short-term and long-term health sequelae include injuries, chronic pain, gastro-intestinal problems, sexually transmitted infections, pregnancy complications, depression, anxiety, post-traumatic stress disorder, suicidal ideation, substance abuse, and others. Children exposed to intimate partner violence are more likely to exhibit physical, mental and behavioral problems and engage in health injurious behaviors. Health care professionals are often the first and sometimes the only outsiders that witness the impact of intimate partner violence and have an opportunity to reach out to victims/survivors. Collaborating with other systems as part of a coordinated community response, the health care system can make significant contributions toward the health and safety of victims and their families.

¹² 2000 US Census

In Vermont, Sixty-four percent of all homicides during the past ten years are domestic violence related. Fifty six percent of the domestic violence related homicides are committed with firearms and 81 percent of the suicides associated with the homicides (i.e. murder/suicides) are committed with firearms.

Vermont Network Against Domestic Violence and Sexual Assault is a statewide coalition of community organizations that offer a variety of services for individual and families who are victims of domestic violence. Services include safe houses, emergency assistance, legal counseling, education programs in the schools, and support groups. In 2004, the Network members served 1208 victims of sexual violence, 7304 victims of domestic violence, and housed 509 individuals needing emergency shelter. In addition, the Network agencies responded to 12,975 hotline crisis calls. Also, 6,922 children and youth were identified as having been exposed to domestic violence in their homes and 219 children were sheltered in Network safe houses.

The VDH administers the statewide Rape Prevention Education program that is implemented by the Vermont Network Against Domestic Abuse and Sexual Assault. The goals of the program are to increase youth and adult awareness and knowledge of sexual violence; provide crisis support 24-hour hotline services for sexual violence survivors; provide trainings and response protocols for health care providers; and, increase statewide surveillance capacity.

As documented in the Safe States Report, “STIPDA recognizes that violence prevention is a public health challenge and an important element within a state’s overall injury prevention efforts.” The Vermont Injury Prevention Program in partnership with the Network Against Domestic Violence and Sexual Assault is publishing a Vermont Curriculum on Intimate Partner Violence for Health Care Professionals and collaborating on a leadership team to develop a statewide Intimate Partner Violence Prevention Strategic Plan. Integrated core injury prevention and control funding would allow the Vermont Injury Prevention program the capacity to locate partners throughout the state to utilize the curriculum and to engage in activities to reduce intimate partner violence.

Intimate Partner Violence Related to Pregnancy

Abuse before pregnancy. 3.3 percent of mothers reported they were physically hurt by their partner during the 12 months before they got pregnant. This is significantly lower than the pre-pregnancy abuse rate of 4.9 percent reported for all PRAMS states. Mothers age 20-24, mothers with less than a high school education, mothers from households with an annual income of less than \$16,000, and unmarried mothers were all more likely to have reported abuse during the year before their pregnancy. However, there were only 42 women reporting abuse before pregnancy, so differences across demographics need to be interpreted cautiously.

Abuse During Pregnancy. 2.6 percent of mothers reported they were physically hurt by their partner during their pregnancy. This is significantly lower than the rate of 3.8 percent reported for all PRAMS states. Mothers age 20-24, mothers from households with an annual income of less than \$16,000, and unmarried mothers were all more likely to have reported abuse during their pregnancy. However, there were only 32 women reporting abuse during pregnancy, therefore differences across demographics need to be interpreted cautiously.

Unintended Pregnancy

Mothers answering the PRAMS survey were considered to have an unintended pregnancy if they answered the question “Thinking back to *just before* you got pregnant, how did you feel about becoming pregnant?” Respondents could choose from the following: they either wanted to be pregnant later; or, that they did not want to be pregnant then or at any time in the future. 36.4 percent of mothers reported that their pregnancy was unintended, significantly below the unintended pregnancy rate of 43.4 percent reported for all PRAMS states. Unintended pregnancies were more likely among teen mothers, mothers with less than a high school education, mothers from households with an annual income of less than \$16,000, and unmarried mothers. More information is becoming available about the issue of pregnancy intendedness, which can guide support and education for women and couples by health care providers and community based clinics. These actions from the service system need to be coordinated and delivered in concert with each other for a comprehensive approach to this emerging public health issue.

3.1.3 INFANTS

The health of pregnant women and their newborns can be assessed via many measures that analyze specific elements of birth outcomes. Common specific measures are infant mortality low birth weight, and congenital anomalies. Broader influences on birth outcomes are also considered here and in other areas of this report, such as pregnancy intendedness and preconceptional health. Social and behavioral determinants may influence birth outcomes, such as access to quality prenatal health care, good nutrition, and avoidance of alcohol and tobacco. Many social conditions such as housing, economic stability, and non-polluted environments also may influence the health of the newborn.

Infant Mortality

In 2003, the infant mortality rate in Vermont was 5.0. This rate varies considerably between years because of Vermont’s small number of infant deaths and births. In the past few years, the rate has decreased, but because of the small numbers, it is unclear if this is a statistically significant decrease.

Low Birth Weight

In 2003, the low birth weight (<2500g) rate remained at 7.0 percent. In the past ten years, from 1994-2003, there has not been a statistically significant change in the low birth weight in Vermont.

Second Hand Smoke

PRAMS data shows that 8.7 percent of mothers reported that their baby was exposed daily to second hand smoke. The rates of second hand smoke exposure were highest for teen mothers,

mothers with less than a HS education, mothers from households with an annual income of less than \$16,000, and unmarried mothers. These results, coupled with the numbers of women who smoke during pregnancy, point to the combined exposure to cigarette smoke that is of a proven health risk to children and their families.

Fathers

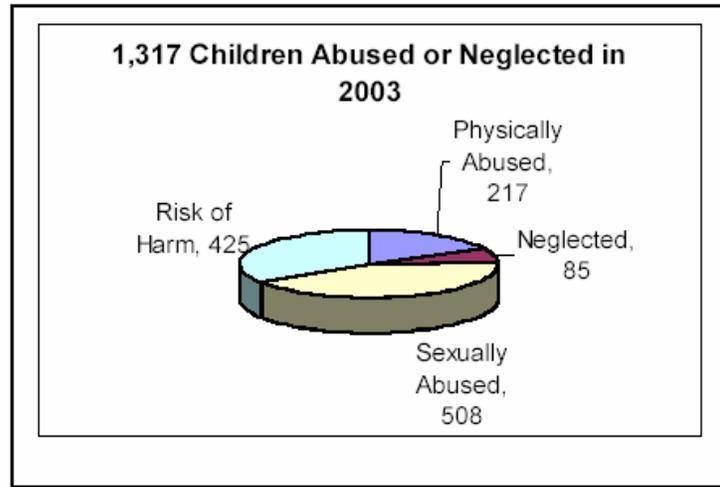
Fathers are increasingly becoming more involved in their children's care. Nationally, the US Census (2003) reports that there are 98,000 fathers who do not work outside of the home versus approximately 5.4 million mothers. A variety of programs have been developed over the past many years that support the strengths of fathers to be involved in the lives of their children. Leaders in this area have been the network of Parent Child Centers across the state, who historically has offered education and support groups for fathers. Practitioners and other service providers have also increased efforts to recognize fathers in their key roles in children's lives. Although these efforts have been a start, informal qualitative data from field workers indicate that much more awareness is needed by service providers about the important role of fathers and the need to always include them when supporting all family members.

3.2 CHILDREN

In Vermont, approximately 22,000 children younger than six are in child care while their parents work. While Vermont's child care systems have received generally high ratings in national reviews, there are still significant gaps to be bridged in the areas of quality, affordability, and access. A recent study commissioned by the Division of Family Services showed wide discrepancies across the state in the capacity of child care in relation to need, the adequacy of subsidized care reimbursement rates, and in the training, earnings, and employment benefits of child care workers.⁹ Twenty-three percent of Vermont parents participating in the National Child Health Survey reported that their children (ages 6-11) had stayed home alone at least once during the past week. This is significantly higher than the US non-Hispanic white percent of 17 percent. These data are noteworthy; however, it cannot be assumed that the children were home alone because of lack of child care.

On any given day, about 1,300 children and youth are living in out-of-home care provided by the division. On September 30, 2004, there were 849 in foster family care; 145 with relatives (kinship care); 20 in independent living programs; 251 in residential programs, including 57 in specialized, out of state programs; 30 placed at Woodside (including short-term detention and long-term treatment). In 2003, 1,317 children were abused or neglected. 217 were physically abused, 85 were neglected, 508 were sexually abused and 425 were at risk of serious harm. In 2003, on an average daily basis, 899 adolescents were being served due to their delinquency or unmanageability.²

Figure 4. Children Abused or Neglected



Medical Home, Insurance and Access to Care

Vermont is proud of its leadership in the percent of children covered by some type of health insurance. Most data sources indicate that 96 percent of Vermont children are insured which is significantly higher than the US rate of 91.2 percent or the US non-Hispanic white 94.3 percent.⁷ Of the Vermont families participating in the NS-Children's Health survey, 57.8 percent report their children have access to a medical home, which is significantly higher than the US rate of 46 percent and the US non-Hispanic white rate of 52.8 percent. In 2003, 89.5 percent of Vermont children were considered fully vaccinated; insured rates for children between the ages of 0 – 17 were 96.9 percent; and, between 97 percent and 100 percent of all pediatricians currently are accepting new Medicaid patients.^{20,21}

Immunizations

The National Immunization Survey data for July, 2003 – June, 2004 shows that 83.2 percent of Vermont children are immunized with the 4:3:1:3:3 schedule. The national rate is 80.5. Although Vermont is historically high with its overall coverage, areas of concern remain. Reports from licensed child care facilities demonstrate that, of the 10,326 children over 19 months of age enrolled in licensed childcare, about 89 percent were up to date on required immunizations, but that only 63.5 percent were immunized against varicella, which is not required. Within this group of children, 248 cases of varicella were reported. Also, data show that of the Vermont children in WIC, 86.6%>6% were fully immunized with the 4:3:1:3:3 series, but only 76.2 percent on non-WIC children were immunized (4:3:1:3:3.)

Oral Health

Dental caries (tooth decay) is the single most common chronic childhood disease – 5 times more common than asthma and 7 times more common than hay fever. Children in Vermont are fortunate to experience significantly better oral health than their peers in other states. In a 2002-2003 oral health survey conducted with 1st, 2nd and 3rd grade students throughout Vermont, 60 percent of the children surveyed were caries-free. Also, 84 percent of the children had no active decay present in their mouth and 64 percent of the 8-year-old children had sealants on at least one of their permanent molars. All of these findings exceeded the US Healthy People 2010 goals for the nation.

The majority of Vermont children in grades 1-3 were found to be in good oral health. Troubling, though, was the concentration of decay. Twenty-three percent of the children in grades 1-3 experienced 82 percent of all the decay found. This statistic reflects national data showing striking disparities in dental disease, notably by income. Children living below the Federal poverty line suffer far more dental caries than their wealthier counterparts, and their disease is more likely to be untreated.

Medicaid helps to fill the gap in providing dental care to lower income children. In Vermont, Medicaid utilization rates for children are higher than many states. In addition, utilization trends have been increasing. For 2004, nearly 48 percent of Medicaid-eligible children received dental care.

Special considerations apply for oral health needs for children. For example, unintentional injuries to the mouth, head, and neck are common in children (e.g. from sports or playground activities). Also, intentional injuries from child abuse or other forms of violence have been increasingly documented in recent years.

Obesity, Nutrition and Exercise

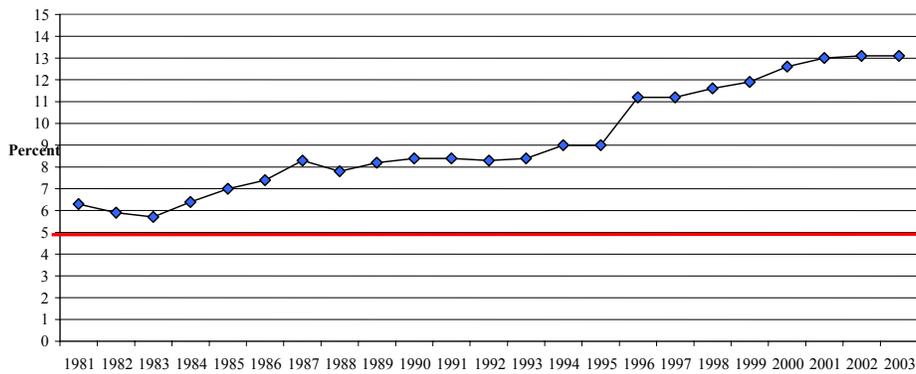
The nutrition of Vermont's children is another area of concern. The obesity epidemic is affecting all segments of the population and is of particular concern for children.¹³ In 2003, over half of adult Vermonters 18 years and older were overweight or obese and 11 percent of Vermont youth were overweight.¹³ Overweight and obesity may also exacerbate chronic conditions and affect quality of life. A recent report indicated that obesity-related health issues may lead to shorter life expectancies and this is particularly important for children.¹³ Overweight and obesity affect the nation's children by putting them at risk for chronic conditions at an earlier age. For example, type 2 diabetes is increasing considerably in children and adolescents. (1, 11, 14) The primary concern of obesity is one of health. Even moderate weight excess (10-20 pounds for a person of average height) may increase the risk of death. (1, 14)

¹³ Vermont Department of Health. The Burden of Obesity in Vermont. 2005

Being overweight is also associated with depression and social stigmatization. Among youth this can be especially difficult, affecting their social development as well as their ability to learn. Youth need to feel they are part of a supportive environment and have adequate access to opportunities for healthy food choices and daily physical activity in order to achieve a healthy weight.

Overweight and obesity result from a combination of metabolic, genetic, behavioral, environmental, cultural, and socioeconomic influences. The Department of Health relies on several sources of data to monitor the issue including the Youth Risk Behavior Survey and the Pediatric Nutrition Surveillance System (PedNSS). The PedNSS is a child-based surveillance system that monitors the nutritional status of low-income children in federally funded programs. In Vermont, the Women, Infants and Children Program (WIC) population is part of this system.¹³ These data show that overweight in children using WIC services increased from 6 percent in 1981 to 13 percent in 2003, a rate that more than doubled.

Figure 5. Long Term Trends in Overweight Among WIC Participants Age 2-5 Years: VT Statewide 1981 to 2003.



Overweight: Children over age 2 whose Body Mass Index falls above the 95th percentile expected for age and gender. In a healthy, well nourished population, 5% of children are expected to be in this category.

Data Source: CDC 2003 Pediatric Nutrition Surveillance Report, Vermont Summary of Trend. The data file includes all children whose height and weight were recorded by the Vermont Department of WIC program during the report year.

A dramatic increase in overweight has been measured in 2-5 year olds participating in Vermont’s WIC program. From 1981 to 2003 overweight has more than doubled from 6 percent to 13 percent. This is especially critical as we know that children who are overweight are more likely to become overweight adults.

The Department of Health, other state agencies and community organizations are working this issue by addressing factors such as built environment, vending machines in schools, and a variety of health promotion and education initiatives (See Section 4) The concern about nutrition and overweight was a major theme in the hospital community assessment data, with community groups expressing concern about obesity, nutrition and exercise as lifestyle issues, and others citing the increase in “junk food” marketing over the decades.

Environment

The World Health Organization noted that over 40 percent of the global burden of disease attributed to environmental factors falls on children below five years of age, who account for only about 10 percent of the world's population.¹⁴ The complexity of children's environmental health goes well beyond exposure to environmental hazards; children's environmental health also encompasses the adverse social and economic conditions that exacerbate these hazards including poverty and malnutrition. The outcome and actions identified in the Vermont State Health Plan 2005 acknowledge the dynamic relationship between the environment and social and economic conditions as have many statewide and local initiatives that help further the state's goals and actions. The state's desired outcome and actions needed are:

Outcome desired: Reduce or eliminate risk factors in the environment that are associated with disease and other adverse health conditions.

Actions Needed:

- Connect regulatory information with public health and clinical data (e.g., environmental data, exposure data, health outcome data).
- Enhance understanding of the uses and limits of scientific tools for determining the relationships between environmental hazards, exposures and diseases.
- Increase coordination among environmental and health authorities and use of information technology to enhance data sharing and cooperation.
- Measurably decrease children's exposure to environmental contamination.

Exposure to mercury and lead are two of Vermont's most pressing children's environmental health issues. Lead is a highly toxic metal that has been and still is used in household and industrial products. Lead exposure can increase the risk of miscarriage, premature birth, stillbirth or low birth weight. It can also cause permanent disabilities to a child. Lead enters the body by inhaling or ingesting the lead directly, most often as lead dust. In a pregnant woman, lead taken in by the mother can cross to the placenta. Vermont has the second oldest housing stock in the nation with about 60 percent built before 1978; the year lead paint was banned. Most Vermont children who become lead poisoned have ingested lead dust or lead from soil that has been tracked into the home. In 2004, 78 percent of 1-year-old Vermont children and 35 percent of 2-year-old Vermont children were tested for lead. Of the 1 year olds tested, 3 percent had elevated blood levels. Of the 2 year olds tested, 3.6 percent had elevated blood lead levels. The CDC has recommended that all children be tested at one and two years of age.

On January 15, 2004, Vermont embarked on a multi-year outreach plan to better educate Vermonters about the health risks of mercury in the environment. This initiative is the product of a collaborative effort among three state agencies. Another statewide effort that supports the overarching goal of outreach and education is the Vermont Association of Hospitals and Health Systems' (VAHHS) work with the Department of Environmental Conservation (DEC) to enlist its members in a unified effort to virtually eliminate the use of mercury in hospital facilities by

¹⁴ The World Health Organization. Children's Environmental Health. www.who.int

the end of 2005. In addition, an effort focused on broadening the resources available to all health care practices and facilities throughout the state is also underway. Simply by eliminating mercury containing devices, the potential human exposure as well as the costs related to mercury spills for medical practices will be reduced.

Children's health can also be adversely impacted by the environment of the building where the attend school. In response to the growing evidence that poor indoor air quality can negatively affect human health and productivity, Act 125 was passed by the Vermont Legislature in 2000. This act charges the Commissioners of Health, of Education, and of Building and General Services to address the issues of air quality and environmental health in schools by providing resources, information, and access to a model environmental health management plan to all Vermont schools. One result of this legislation is the creation of the Envision Program which promotes healthy school environments. This voluntary program assists school by enabling them to identify current and potential indoor air quality and environmental health issues and to implement strategies to address them.

3.2.1 REFUGEES AND REFUGEE FAMILIES

Vermont's burgeoning refugee population creates challenges for the public health and clinical health care systems, but also offer wonderful opportunities for creating new relationships and learning about new cultures. Between 1980 and 2004, Vermont received 4,770 refugees. In 2004, 270 refugees arrived in Vermont. As part of public health direct services, health evaluations take place within 30 days of arrival and are conducted by the Community Health Center in Burlington and private health care providers. In order to build health care infrastructure, VDH recruits and orients primary care providers for assessment, treatment, and ongoing management of refugee health needs. The Refugee Health Coordinator, the State Coordinator, and the District Office staff work closely with the Vermont Refugee Resettlement Program, the Office of Minority Health, and private providers to assure that care is available, accessible, and culturally appropriate. Interpreter services are arranged through contacts with the local resettlement agency, as well as with the LLE (Language Learning Enterprises.). The goals of the refugee health program continue to focus on health education and training for both providers and refugees and infectious and chronic disease case management and services coordination through the provider medical home.

3.3 YOUTH

“Young people who make healthy choices, and who are successful, resourceful, creative and joyful, have strong connections with others—parents, other family members, and caring peers and adults; they have a sense of belonging. They are competent in multiple areas—academically, socially, emotionally and exercise their skills to achieve their goals. They express character through making contributions to others, and developing a set of values. They acquire a sure sense of who they are—confidence in themselves, confidence in what they future holds for them, and the determination to make it happen.”⁹

3.3.1 THE POWER OF “ASSETS”

The Agency of Human Services and MCH partners over recent years endeavored to identify asset indicators for Vermont’s youth based on the belief and understanding that positive youth development cannot be defined simply by the absence of risk behaviors; strengths must also be identified in the lives of young people that contribute positively to their well-being. Strong connections with parents and other positive adult figures, competence in one or more skill-areas, independent decision-making, and recognition for participation in meaningful activities—are some of the factors experts agree are critical for all youth to be engaged, productive citizens. Analysis of Vermont Youth Risk Behavior Survey data shows the cumulative effect that just six “assets” have on the likelihood that teens will engage in either risk behaviors or healthy behaviors. The six are: getting good grades in school, talking with parents frequently about school, feeling that students help decide what goes on in school, participating in after-school programs (at least 1 hour per week), volunteering in the community (at least 1 hour per week), and feeling that “I matter” in the community. The more of these six assets students report having, the less likely they are to venture into risky behavior, and the more likely they are to adopt health-promoting practices. The following graphs show the associations between healthy behaviors and risk taking behaviors – that number of self-reported risk behaviors declines with increasing number of assets, and also that healthy behaviors increase with the number of assets. These findings aid in planning interventions that support and empower youth rather than simply focusing on their deficits. In addition, it is this philosophy of youth assets that has influenced the approach of the Title V population based Strengths and Needs Assessment.

Figure 6. Risk Behaviors Decline with Number of Assets

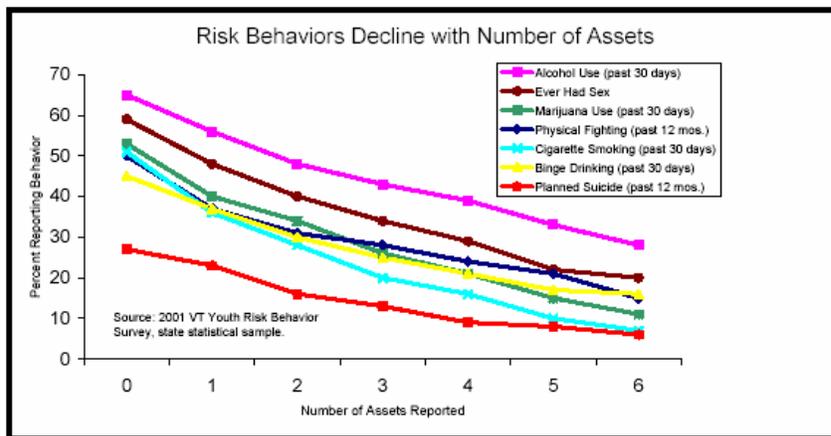
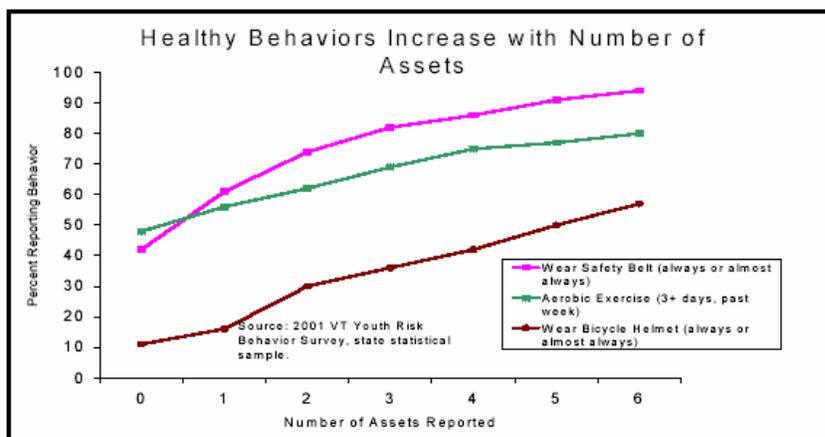


Figure 7. Healthy Behaviors Increase with Number of Assets



3.3.2 THE GRAND CHALLENGES FACING OUR YOUTH

Many of the YRBS indicators demonstrate an increase in the number of healthy behaviors, but some troublesome behaviors still need addressing:

- Drinking and driving has decreased. Among 12th graders, drinking and driving decreased from 42 in 1985 to 16 percent in 2003.
- Overall, in 2003, 39 percent of students drank alcohol while 53 percent reported drinking alcohol in 1995 (at least one drink in the past 30 days.) However, 23 percent of students reported binge drinking in the past thirty days.
- Overall, 8 percent of students reported using cocaine and 3 percent heroin.
- Overall, 88 percent of students reported always wearing their safety belt when driving a car.
- Overall, 38 percent of students always or almost always wore helmets when riding bicycles in 2003, compared to 11 percent in 1993.
- From 1993 to 2003, physical fighting dropped from 54 percent to 40 percent among 8th graders, 46 percent to 30 percent among 10th graders, and 33 percent to 18 percent among 12th graders.
- In 2003, 35 percent of students reported ever having sexual intercourse. Five percent report having been forced to have sexual intercourse.

Tobacco use

Tobacco use is responsible for more deaths in the United States each year than any other cause. With ambitious goals of reducing smoking among youth and adults by 50 percent between 2000 and 2010 and reducing exposure of all Vermonters to secondhand smoke, the Vermont Tobacco Control Program provides direct and enabling services such as support for community-based coalitions, school prevention curricula and policies, quit-smoking services, mass media and

public education, and the enforcement of youth access laws. While each of these components is individually effective, the impact of any one intervention is greatly enhanced when several components are included and designed to reinforce each other.

Vermont's program, which began in July 2000, is showing progress. Smoking rates among Vermont youth have steadily dropped – in 2003, 36 percent of students had ever smoked a whole cigarette down from 42 percent in 2001, 54 percent in 1999, and 59 percent in 1997.¹⁵ Adult smoking rates have decreased from 23 percent to 19.5 percent, and there are approximately 10,000 fewer smokers today than in the first year of the program.¹⁶ Further, 57 percent of Vermont smokers with children reported prohibiting smoking in the home in 2003, up from 43 percent in 2001. And 74 percent of Vermont smokers with children reported prohibiting smoking in the car in 2003, up from 54 percent in 2001 (VDH, Adult Tobacco Survey, 2001 and 2003). Despite these gains, much work is still to be done to achieve the Healthy Vermonters 2010 objectives for reducing tobacco use. Twenty-one coalitions, funded to make *not smoking* the norm in their community, are in place. Each of these coalitions serves as the hub for local tobacco control activities and each works with an average of 26 additional organizations to reduce tobacco use. Vermont Kids Against Tobacco (VKATS) involves more than 3,000 students in grades five through eight at 56 sites, and Our Voices Xposed (OVX) is in place in 16 sites to serve high school age youth. These programs have been successful, but face a continuing struggle to counteract the messages from mass media, including movies and print ads, that promote smoking as the norm.

Suicide

Suicide is a serious problem among Vermont's young people. In 2002, suicide was the third leading cause of death for 10-14-year-olds and the second leading cause of death for 15-34-year-olds. According to the 2003 *Vermont Youth Risk Behavior Survey*, 13 percent of students in grades 8-12 had made a plan about how to attempt suicide, 7 percent had actually attempted suicide, and 2 percent had made a suicide attempt that required medical treatment. In addition, students who used cigarettes, alcohol and marijuana were twice as likely to make a plan, attempt suicide and make an attempt that required medical treatment than students who did not engage in these behaviors. According to national figures, gay and lesbian adolescents are two to three times more likely to attempt suicide than their heterosexual peers.

The Department of Health recognizes suicide as a significant public health problem and has included goals related to suicide deaths, suicide attempts, substance abuse and mental health as health priorities in *Healthy Vermonters 2010*, the department's Blueprint for improving the health of Vermonters. The Department of Health, including the Division of Mental Health, has been working with a suicide prevention planning team in conjunction with an advocacy group, *Vermonters for Suicide Prevention*, to develop an action plan for Vermont. Members of the team and group represent various state agencies, legislators, and interested individuals. The *Vermont Suicide Prevention Plan* is the result of this effort. This plan will involve regular ongoing review and revision. This review will involve tracking progress and achievement of goals.

¹⁵ Vermont Department of Health. Youth Risk Behavior Survey

¹⁶ Vermont Department of Health. Vermont Behavioral Risk Factor Surveillance Survey 2003

3.4 CHILDREN WITH SPECIAL HEALTH NEEDS

The assessment for the Children with Special Health Care Needs (CSHCN) population included:

- Focus groups with parents/caregivers of CSHCN (not just those enrolled in the Title V CSHN program)
- Vermont-specific analysis of the National Survey-CSHCN (NS-CSHCN) data
- Data from Parent to Parent of Vermont
- Newborn screening data

The following narrative, organized by several of the Six MCHB CSHCN outcomes, is a summary of the CSHN assessment findings.

3.4.1 ACCESS TO PRIMARY CARE MEDICAL HOMES

Vermont children have excellent access to basic primary care, with nearly every primary care provider (PCP) accepting Medicaid as insurance. In addition, for several years, all but one primary care pediatrician and several family practitioners have participated in a variety of quality improvement activities overseen by the Vermont Child Health Improvement Project (VCHIP) at the University of Vermont, College of Medicine. In the CSHN component of the Title-V needs assessment five years ago, focus groups of parents of CSHCN stated that, by far, they had a regular provider of primary care for their child; however, when presented with the specific attributes of “medical homes,” only about half of the families reported that their PCP provided a medical home. This commentary is consistent with the findings from NS-CSHCN.

In this planning year, 57 parents or guardians of 73 CSHCN from three areas of Vermont participated in 5 different 1.5 hour focus group discussions. Families were recruited through physician offices, early intervention programs, and local newspapers. Through the MCHB-funded medical home grant, CSHN contracted with Marketing Partners, a public health social marketing firm, to implement the focus groups. Focus groups were conducted with a semi-structured interview format which encouraged parents to express in-depth views regarding the difficulties, barriers, and needs impacting the care of their children with special needs. Conversations were recorded, de-identified, transcribed, coded by several constructs, and analyzed.

The ultimate success of the movement towards improved medical home access is measured by the families’ own perceptions of better support, better coordination of care, and improved access to information and services. The sample of focus group caregivers found that these aspects continue to need more attention in Vermont medical homes. More specifically, Vermont children with higher impact/severe conditions (as identified through the NS-CSHCN data) were less likely to receive coordinated, ongoing comprehensive care within a medical home than those with lower impact/severe conditions (52.2 percent versus 72.7 percent, respectively). These latter findings were similar for the US non-Hispanic white population.

Diagnostic Phase

Diagnosis was often (and understandably) a time of uncertainty and stress. Just over half of the focus group families reported a delay in receiving a diagnosis for their child that they believed negatively impacted outcome or caused undue problems. In addition, many respondents related that a diagnosis was not fully understood, that certain implications were not realized at the time of diagnosis, or that there were often differences in the perceptions of doctor and family about the nature or severity of the condition. By contrast, few reported that the diagnosis was explained in a way that was comprehensive, sensitive and compassionate.

Information Needed

Once a diagnosis was obtained, the vast majority of respondents articulated that they obtained needed information on their child's condition from sources other than their PCP, and many reported they actually received little or no information from their PCP. Anecdotally, the testimony of parents, particularly but not solely of children with emotional-behavioral or developmental disorders (e.g., autism, ADHD, learning disabilities), were replete with stories of dismissal of their concerns by physicians. Parents voiced that they did not expect their child's pediatrician to know all about all conditions, but there was a tremendous appreciation for the pediatrician who acknowledged what was not known and then sought the relevant information. Parents often assumed the role of lay researchers to become experts on their child's condition, and not infrequently parents reported teaching the PCP about the condition. PCP knowledge of local resources and referral sources can be limited, presenting significant problems for both for physicians as they try to coordinate services, and for families.

Care Coordination (See section 3.3.2.)

Barriers

Pediatricians, through the Vermont Chapter of the American Academy of Pediatrics (AAP), have identified lack of time, staff, and reimbursement as inextricably related barriers to providing medical home care. Significant efforts have been made to develop billing codes and insurance reimbursements for care plans and for "incident to" services. Although some progress has been made, there is currently inconsistent reimbursement through Medicaid; efforts are continuing through collaboration of VT-AAP, VDH, VCHIP, and Medicaid workgroups.

3.4.2 SERVICES ARE ORGANIZED SO FAMILIES CAN EASILY USE THEM

Care coordination

As mentioned previously in this report, the Vermont Agency of Human Services (AHS) has undergone reorganization. The goal of the AHS reorganization is to realign services for Vermonters who need services of AHS departments to improve access and coordination. Although the reorganization is not specific to the needs of CSHCN, the commitment to better care coordination is important to this group.

This year's parent focus groups give very clear guidance to the improvement of care coordination and parents' preferred sources of coordination. First and foremost, parents consider themselves to be the permanent, primary, and constant source of care coordination for their children. Parents reported the need to develop their own knowledge and skills in the area of care coordination, expressing a strong responsibility to be the ultimate person in charge, while needing to rely on the physician for insurance referrals and diagnoses to access services. Even in those few cases where the PCP was regarded as central to care coordination, parents still assumed ultimate responsibility and need for control. Interestingly, this perception is very much at odds with the opinion, nationally, of the majority of pediatricians (71 percent) in a 2000 AAP survey who reported that they serve as the primary coordinator of their patients' medical care. American Academy of Pediatric, Division of Health Policy Research. Periodic survey #44. Health Services for Children With and Without Special Needs: The Medical Home Concept Executive Summary. AAP, 2000.¹⁷ Perception of what care coordination entails perhaps accounts for this discrepancy. In this same survey of pediatricians, fewer than half developed integrated care plans, discussed non-medical needs with the families, or adjusted visit times with CSHN—and fewer than a quarter routinely collaborated with the educational system, were involved with the discharge planning teams when transitioning children back to the community, or followed up with families after visits to a specialist.

The findings from the Vermont focus groups emphasize that, although care coordination is considered an essential component of the medical home—and, historically, of Title-V/CSHCN specialty care clinics—care coordination must be considered principally as a shared role with families, guided by what is most needed from the families' perspective. Before a new or improved mode of care coordination is built, attached to any particular agency (AHS department) or element (primary care providers or payers) of a system, the prerogatives of the family to remain in control of their child's health care must be maintained and respected. (Please also see section 3.3.3 below, and Parent to Parent of VT data.)

Geographical access

In another set of findings from the Vermont focus groups, a large majority of parents reported difficulty accessing services. In Vermont, a primarily rural state with only one tertiary/children's hospital in the northern region of the state and one just over the border in New Hampshire, there is inevitably a significant amount of travel to access needed specialists. CSHN and Fletcher Allen Health Care (FAHC) address this need to some extent by sending specialists or teams to other regions of the state on a periodic basis (see PYRAMID, below). But other services are simply not available in Vermont, and require travel to Boston, New York City, Philadelphia and even more distant specialty centers.

Community-based access to quality services

Parents also reported that not all necessary community based services are available in all regions, nor is quality service equivalent across regions. Availability of local resources and travel, as well as funding, finding out about and accessing services, and getting authorization for therapies or referrals were all noted to be areas of stress for parents.

¹⁷ Available at: <http://www.aap.org/research/periodicsurvey/ps44aexs.htm>.

3.4.3 FAMILIES PARTICIPATE AT ALL LEVELS

CSHN continues to provide unique support to parents through parents, by its work with Parent to Parent of Vermont (P2P). CSHN provides a grant to help support the infrastructure and parent outreach activities of P2P, a statewide parent-run organization which provides parents of children with special health care needs--chronic illnesses and/or disabilities--with the unique support and information which is best provided by other experienced and trained parents. P2P is also supported through federal and foundation grants, donations and legacies, as well as through CSHN (utilizing Title-V, Title-XIX and state match) which has provided resources to P2P since 1987 – funding that initially helped to expand its support network statewide, and more recently helping to create its database. The database is particularly useful to CSHN and VDH in identifying family needs and suggesting ways that a state health department program can meet those needs.

Recent P2P summary data about its activities and family needs emphasizes the increase in needs:

Family Support

Family support provides peer matches, resources, information and referrals to families throughout Vermont and occasionally around the country. The depth of support varies according to family need.

Figure 8. Parent to Parent Summary Data

Year	Unduplicated Count of Families – provided with direct support	New Families Added	Primary Contacts with Families
2004	669	376	1629 (1909 secondary contacts for total of 3538 contacts*)
2003	647	379	1673
2002	633	321	1540

* Method of tracking calls changed in 2004 with development of new database

In the counties where P2P has added field staff in the past three years, there have been significant increases in communications with families: Franklin County, 83 percent increase in calls; Grand Isle County, 84 percent; Caledonia, 50 percent; Essex, 600 percent increase (skewed by small numbers); Orleans, 275 percent; Windham, 66 percent increase.

Intensity of Support - a pattern of intensity of service/support provided to the family emerges from analysis: Calls are into three main categories: navigation, “typical” family support, and service coordination or intense support based on the number of communications in a year with a given family.

- 1 to 5 calls = navigation: assistance identifying needs and providing resources, support, information and referrals including peer matches (481 families).

- 6 to 15 calls = typical family support: all of the above plus assistance with healthcare financing needs, special situations such as hospitalizations, ongoing support and information as a situation emerges, and many other situations (147 families).
- 16 + calls = service coordination/intense support: all of the above plus support around communicating with service providers and state agencies, attending care conferences or meetings on behalf of family. Often these families are in extremely challenging situations that may include elements of poverty, challenges with parenting, significant or complicated diagnoses, or any other host of issues that may create intense service coordination needs (41 families).

Flexible Funding for Families - the downturn in the economy has negatively impacted many P2P families. State policy changes (in response to federal budget changes, in many cases) include increases to Dr. Dynasaur premiums, a freeze on developmental services waivers, and the impact of TANF policies on single parents supporting children with significant medical needs.

As a result, P2P has received a flood of calls for financial assistance and assistance navigating the complicated systems of services.

In total, \$58,408 was requested from P2P in flexible funds for families and \$17,765 was provided based on available funds. In addition, approximately \$11,000 in Respite Grant funding was provided to P2P families.

Other P2P activities, including teaching future healthcare providers about family centered care, grant writing, managing the library, providing in person support at the Children's Hospital at Fletcher Allen Health Care, attending collaborative meetings, doing data entry and follow up work and research for families, and many other activities, happen quietly and effectively is done by 4.125 FTE (7 individuals). These Family Support Coordinators are parents of children with special needs themselves. Many of them have college degrees and two have graduate degrees. Each FTE supports an average of approximately 160 families yearly (a state agency may call that a "caseload" of 160) and find time to provide assistance, research and referrals for over 200 professionals in 2004.

3.4.4 ACCESS TO SERVICES THROUGH INSURANCE ADEQUACY

The MCH Research and Statistics unit, within the Division of Health Surveillance, has produced two detailed data reports from the National Survey – Children with Special Health Care Needs (NS-CSHCN). The first report is based on Vermont residents, while the second replicates the data for the U.S non-Hispanic white population for comparison purposes. Each reports presents the finding by overall prevalence, type of special need from the screener questions, demographics, the Title V outcome measures and their components, and questions relating to the impact on the child, impact on the family, type of health care needs, and need for family support services. Each of these topics/questions are presented for the total population and by gender, age group, insurance status, the impact/severity of the condition, whether or not the child's need was defined solely by need for prescription drugs and 2 groupings of income level. For each measure the estimate, 95 percent confidence interval and unweighted numbers (to

identify measures with few respondents) are presented. These two reports provide a very comprehensive overview of the data.

Prevalence of CSHCN

Extensive analyses of the NS-CSHCN identified important differences between the Vermont and the U.S non-Hispanic white population. While there are no differences between Vermont and U.S non-Hispanic white population in prevalence of CSHCN, either in total or by age, gender, or income, there are a number of significant differences that are pertinent to, for example, the Title-V Needs and Strengths Assessment.

Income of families with CSHCN

The relationship between income and insurance type is important to Vermont's children with special health care needs. A significantly higher proportion of CSHCN in Vermont are at or below the Federal Poverty Level, 15.5 percent, compared to the US non-Hispanic white population, 8.9 percent. When this same comparison is made using an income threshold that is sensitive to access to public assistance in Vermont, the difference is even greater. Forty percent of Vermont CSHCN are below 185 percent of FPL, compared to 24.7 percent among US non-Hispanic whites. These findings are consistent with Census data that indicate the median family income in VT in 1999 was \$48,625 compare to \$53,356 for the US white population.

Insurance status of CSHCN

Consistent with Vermont's lower income, more CSHCN in VT had public insurance than the US non-Hispanic white population (30.5% vs. 15.3%) and fewer had private insurance (46.5% vs. 73.4%). The impacts of income differences are muted for Vermont CSHCN. VT CSHCN are more likely to have adequate insurance than US non-Hispanic whites (68.7% vs. 62.5%). This is especially true for those at less than 185 percent of FPL where 72.9 percent of VT CSHCN report adequate insurance compared to 52.0 percent of US non-Hispanic whites. Although overall there are no differences between VT and US non-Hispanic whites in gaps in insurance coverage, low income Vermonters were less likely to report gaps in insurance than the low income US non-Hispanic white population (7.8% vs. 19.9%).

Effect of impact and severity of condition

Also examined were various outcomes by the impact and severity of the child's condition. Children whose conditions never affected their ability to do the things that other children their age do and whose conditions were ranked as mild in severity were classified as low impact/severity. All other children were classified as higher impact/severity. The percentage of children classified as having a higher impact/severe condition was similar in VT (78.9%) and in the US non-Hispanic white population (76.8%). In Vermont the higher impact/severity group was more likely than the US non-Hispanic white population to have public insurance (33.7% vs. 18.0%), and were less likely to have private insurance (40.9% vs. 69.2%). In addition, in VT those with public insurance were more likely to report that their insurance was adequate than the US non-Hispanic white population (72.8% vs. 59.3%).

Analysis of the VT NS-CSHCN data indicate that publicly funded health insurance—Medicaid—at the time of the survey was perceived by families to be adequate, protective of out-of-pocket expenses, providing good access to primary care (if not “medical home” care). Eligibility for VT Medicaid is worth preserving at high levels for CSHCN, including continuing to make available the TEFRA Option (in VT, called “Katie Becket Option” or “Disabled Children’s Home Care Program—DCHC”, which undoubtedly accounts for the relatively higher enrollment in Medicaid for severely impacted children with higher families incomes). This conclusion is particularly important at this time of increased premiums for higher income Medicaid families, and possible changes in entitlements if VT receives its “Global Commitment” waiver. In addition, since the first round of NS-CSHCN interviews, there have been severe cuts in the Medicaid Home and Community-based Services waiver for children with developmental disabilities, and tightened interpretations of medical necessity for certain entitled services. It is anticipated that the “adequacy” of public insurance may not be as high in the next round.

3.4.5 ALL CHILDREN, INCLUDING CSHCN, WILL BE SCREENED EARLY & CONTINUOUSLY

The adequacy of the MCH/CSHCN programs in population-based services such as screening will be discussed under the Pyramid, following. However, as a health status measure, Vermont has strong newborn screening programs, assuring that over 90 percent of all newborns are screened in a timely way and receive timely follow-up. Vermont recently expanded the number of congenital conditions for which babies are screened, from 7 to 21 conditions. Since July 2003, all Vermont birth hospitals have screened all newborns for congenital hearing loss. The Vermont legislature has passed the Birth Information Network statute, and the CDC has funded its initial development and implementation, with the goal of earliest possible identification of certain congenital conditions and the assurance that identified babies have access to needed early intervention and health services.

An ongoing need, however, is a method to assess whether CSHCN receive ongoing screening and other services in accordance with the periodicity schedule, in comparison with other children. A statewide immunization registry is being piloted, as an initial module in a more comprehensive child health database. However, it is reasonable to infer that CSHCN may not receive routine screenings as regularly, especially those which are conducted outside of a well child physician visit, because of the increased difficulty of certain screening methods. For example, school nurses who are otherwise responsible for annual hearing screenings, may not be able to use routine techniques to screening some CSHCN; however, they may refer “difficult to test” children to the Hearing Outreach Program which uses OAE methods that require less child cooperation.

A second area of inquiry is whether routine (but appropriately adapted) topics of anticipatory guidance and psychosocial screening (discipline; peer relationships; puberty; family stresses) are discussed with parents at well child visits for the CSHCN at the same rate. Regardless of the expertise of the specialty care a CSHCN may be receiving, many of these topics (and their role in screening) are felt to be the responsibility of the PCP—who may feel unable to adapt the discussions to the child’s particular condition—and so, no one discusses them.

3.4.6 ADOLESCENT TRANSITION

In the first NS-CSHCN interview, only one state (Maine) was able to demonstrate significant efforts in the area of promoting health transitions to adulthood. Our focus groups did not address this particular issue. The aforementioned reorganization of AHS programs and departments offers some structural help to smooth adolescent transitions: A new Department of Disabilities, Aging, and Independent Living has unified the central administration of childhood and adulthood supports through Medicaid Home and Community Based Services waivers, and has the potential to blend other programs across this transition point. However, in the last 5 years, budget cuts have resulted in a loss of developmental services supports for children, in order to preserve supports for adults with developmental disabilities. In most other programs age-related eligibility policies (CSHN; school; Dr. Dynasaur/Medicaid; Medicaid personal care services; and EPSDT service entitlements all terminate at ages 18-22 years) conspire to create multiple abrupt service “cliffs” in late adolescence.

SECTION 4. EXAMINE MCH PROGRAM CAPACITY BY PYRAMID LEVELS

In order to examine the MCH program capacity by pyramid levels it is important to understand the context in which it is operating. In recent years there has been movement within government to change the overarching system of care. Vermont has undertaken a new venture called, “Vermont Blueprint for Health” dedicated to “achieving a new health system”.¹⁸ The Blueprint embodies many things: “it is the vision that health care can be made better for Vermonters; it is a plan that provides the structure and outcomes to achieve that vision; and, it is a partnership of organizations, public and private, that are committed to its implementation.”¹⁸ The goals of the Vermont Blueprint for Health are to:

1. Implement a statewide system of care that enables Vermonters with, and at risk for, chronic disease to lead healthier lives;
2. Develop a system of care that is financially sustainable; and,
3. Forge a public-private partnership to develop and sustain the new system of care.

The Blueprint utilizes a “framework for change” based on the Chronic Care Model. “As its ultimate goal, the Model envisions an informed activated patient interacting with a prepared, proactive practice team, resulting in high quality encounters and improved health outcomes. It has six components: community, health system, decision support, delivery system design, self-management education and clinical information systems.”¹⁸ One article reviewed for this assessment was entitled, Paul Farmer’s Grand Challenges, Dr. Farmer commented, “The delivery system is the grand challenge. It’s not secondary to tools. We will have a harvest of shame if effective tools continue to be developed by scientists, but are not delivered to the people who need them most. We have First World diagnostics but Third World therapeutics. It’s one of the primary ethical problems of the 21st century.”¹⁹

Several times throughout this report there has been reference to a strong MCH community, system of care and public-private partnership (one aspect of the vision for the Blueprint). This strong foundation has MCH well poised for this new system of care being explored. However, MCH is also well positioned to examine this system and approach with a critical eye. For example, staying true to the populations MCH serves, one partner asked, “Where do children with special health needs fit within the Chronic Care Model [Initiative]?” As the planning and implementation for the Blueprint unfolds, support for services for children, and for children with special health needs, will need to be included. A framework for this goal can be found in the work accomplished by the CHSCN Medical Home project and the historic planning done within the Measuring and Monitoring Project (Vermont being one of several states participating under the leadership of the MCHB and the Early Intervention Research Institute at Utah State University.)

The question of capacity elicited the broadest spectrum of answers from the key informant interviews, ranging from key informants stating that the state’s capacity is limited due to shrinking resources, to the state having the capacity, however, needing to be “smarter” in its approach. Many spoke positively of the statewide and regional collaborations and the

¹⁸ Vermont Department of Health. Vermont Blueprint for Health. Disease Control Bulletin. May 2004.

¹⁹ [author]. Paul Farmer’s Grand Challenges. Journal of Nursing Scholarship. Third Quarter 2004

public/private partnership. Others discussed strategies to strengthen the state's capacity such as creating funding opportunities that recognize the type of work that is being done given the complexity of systems' change and dynamics at play. Observations from the hospital sponsored community assessments also related to statewide systems collaboration – comments indicated both praise for the existing communication but also a desire for better collaboration both statewide and locally. There were also comments about local community coalitions needing to communicate better so as to not overlap in mission and activities.

The issue of identifying and responding to new challenges in a timely and appropriate manner was also identified as a means of strengthening the state's capacity which some identified as an issue of “will” versus capacity. One key informant commented, “There is a tremendous system and cognitive gap, an information gap, a societal will gap—feeling that they can't do anything about it. Also a resource gap.” On a similar note, another key informant commented, “Our ability is being significantly taxed. I don't know if we have the ability to meet these challenges if we don't think about the challenges differently: look at how things are funding, how we administer programs. Our ability to meet the challenges has to do with our willingness to change the way we do business.” Yet still others questioned the state's capacity based on the myriad of social and economic issues including poverty, housing, health and education. In order to strengthen the state's capacity, the informant identified the need to recognize that the issues are inter-related and need to be addressed as such.

Key Informants

Although key informants praised the state on its current status, all recognized that there is work that remains in a time when significant political and social threats may be undermining the progress that has been made. The following topic areas are those that key informants perceived as compromising the state of MCH, and its strong foothold, in Vermont currently:

Coordination of Services

In the context of discussing the numerous service resources available to Vermont families, several key informants identified the need to improve coordination of services. Several spoke of the variation in service level, specifically in advocacy, that impacts the types of services families receive and the coordination. Another key informant stated, “The problems are that the system doesn't talk to itself.”

Social & Economic Issues

Transportation, housing, the ability to earn a livable income were all identified as significant issues. One key informant commented that Vermont has a “real housing issue that truly affects the health of children... Living in unsafe housing, moving a lot and living far away from where parents work puts a lot of stress on the family.” The informant went on to describe parents who work 2-3 jobs in order to “make ends meet”. The informant concluded by reiterating the need

to ensure that there is more availability of safe affordable housing, and commented, “Why don’t we have home health nursing [model] for families [to address these issues]?” Many organizations are confronted by the social and economic issues of families on a daily basis, but few have the resources to address the increasing need.

Substance use and treatment issues

The cascading effect of substance abuse and the lack of treatment providers increasingly test the current state of MCH in Vermont. Many key informants commented on the workforce issue: the lack of providers/places to refer individuals. While another informant observed increases in foster placement, the incarcerated female population, and in Termination of Parental Rights (TPR) all of which was attributed to the increase of substance abuse in the state. The key informant commented that although substance abuse is recognized as a chronic disease, the state’s response to the issue lacks tolerance for the recovery process which is not dissimilar to the recovery process (in terms of time) of most chronic diseases. The individual concluded the interview by identifying the need to more closely examine the treatment of substance abuse as a chronic ailment in addition to gender-responsive treatment plans, treatment plans responsive to special needs populations, as well as increasing access to pharmacological treatment.

Access to mental health services for children

All key informants discussed the issue of mental health and mental health treatment, identifying it as the new morbidity. Many acknowledged the stigma that is still attached to mental health inhibits access to services. However, the lack of mental health practitioners, specifically for children, poses the greatest threat.

Access to dental care

Another workforce issue in terms of access was dental care. Several key informants discussed the lack of availability of dentists for children and that this issue is extending into the population of pregnant women. One key informant described the issue of dental health in terms of a “two tiered system”, commenting that contrary to pediatricians, dentists are not necessarily interested in taking Medicaid and cap the number of Medicaid patients that they see. The key informant stated that approximately 50 percent children on Medicaid have seen a dentist within the past year.

The System

Many key informants acknowledged the “system” as both which makes the current state of MCH in Vermont strong as well as the “work” that needs to be done to improve MCH. One key informant said, “We still are doing better than most states and we have complex systems that make things challenging.” Another key informant described the system as “more fragmented than ever—there are always parts that need to be supported”. The informant added that the fragmentation can be avoided through improved planning and policy decision making that engages a diverse group of stakeholders to increase the likelihood that the implications of such decisions are more carefully thought out. The increase in Medicaid premiums and aspects

of the Agency's reorganizations were examples provided to illustrate what some perceived as insufficient and isolated planning.

Interdepartmental collaborative work, communication and planning, however, are examples several key informants discussed as a means of overcoming fragmentation and assuring a coordinated effort in the midst of government reorganization. Key informants spoke of monthly meetings with other departments to discuss a wide spectrum of public health issues where policy can better support practice. Whereas others expressed concern about losing a public health focus in programs that were moved out of the Department of Health to other departments with new leadership whose focus historically has not been public health.

Another key informant interview was the most illustrative of the complexity of a system whose strength may come with compromises. This key informant described the system as a system in need of emergency services given the need in regions where access is limited and general information about available services is not always well-understood. The individual spoke at length of the strength of the system lying in the years before a child enters school. Subsequent years, for children 5 -18 years of age, were described as challenging. "These years are inconsistent, challenging and require more resources. For families in the rural areas there is a lack of support. Issue of isolation is tremendous. The people with the greatest needs are not in the areas where it is easy to access resources and support. Family preservation is the first thing to go when a system is under pressure when it should be the last."

As stated earlier, the feedback from the MCH Coalitions mirrored the data from the key informants. Specific issues cited include:

- Examples of the strengths of the system are immunizations, lead screening, primary care services.
- Progress is being made for improvement in the accessibility of dental health services, but more needs to be done.
- Increase scope of perinatal services offered by private insurers, such as routine offering of postpartum home visits.
- Rising numbers of women addicted to drugs and using alcohol.
- Improve overall coordination of hospital and community based services for women and newborns.
- Increase of supports for fathers.
- Improving services and providers' approach to families and respect for the family as the main provider of their health care.
- Move toward system of universal health care for Vermonters
- Policy makers need to be reminded about what it is like for lower income families to deal with health and social issues and try to make a good life for their children.

The comments from the key informant interviews and the MCH Coalitions cut across all levels of the pyramid: Direct Health Care Services; Enabling Services; Population based services; and, Infrastructure-Building Services. The following is a discussion of some specific strengths and needs identified from the assessment by pyramid level with supporting data.

4.1 DIRECT HEALTH CARE & ENABLING SERVICES

Vermont is served by fourteen non-profit hospitals and approximately 254 primary care practices statewide, including the state's system of designated Federally Qualified Health Centers (FQHC) and Rural Health Clinics (RHC). Of the fourteen hospitals, twelve are community hospitals, one is a Veterans Administration Hospital, and one, Retreat Healthcare, (formerly the Brattleboro Retreat), is for psychiatric inpatient treatment. Fletcher Allen Health Care, in alliance with the University Of Vermont College Of Medicine, is Vermont's major tertiary medical center and the state's only academic medical center. In 2004, FAHC served about one million clients, had 33,100 admissions and 2,154 births. FAHC includes more than forty patient care sites and one hundred outreach clinics in Vermont and northern New York. It is by far the largest hospital service in the state, with a medical staff of 700 physicians and a nursing staff of over 1,200 registered nurses. Dartmouth Hitchcock Medical Center, bordering Vermont in Hanover, New Hampshire is also a major academic medical center and serves a significant number of Vermonters.

All fourteen hospitals have networks of primary care and specialty physicians and a willingness to serve people within their communities without regard to income and ability to pay. This willingness takes different forms in each community. When willingness and lack of resources becomes a barrier for the underinsured and uninsured, the Vermont Coalition of Clinics for the Uninsured is a critical player in ensuring access to care (see Appendix C for map of Vermont's Safety Net Providers).

Federally Qualified Health Care Centers and Rural Health Clinics

Federally Qualified Health Centers (FQHC) and Rural Health Clinics (RHC) have been developed in response to the difficulty accessing primary care services for Medicaid, Medicare uninsured, underserved and marginalized communities. Each model provides primary care, is developed in an area designated by the federal government as underserved and each benefits from an enhanced reimbursement for Medicaid and Medicare services. Rural Health Clinics are only developed in rural areas and can specialize in primary care (Pediatrics, Internal Medicine, Family Practice, and Obstetrics). Reimbursement for RHCs for Medicaid and Medicare is enhanced, but lower than an FQHC, can be for profit or not-for-profit and owned by an individual, group or organization. RHCs can only exist as a single site, not a network of RHCs.

Federally Qualified Health Centers can be developed in rural or urban areas and must provide comprehensive primary care services across the life span. FQHCs must be 501c3 with a 51 percent consumer board. FQHCs can be part of a network of clinics or satellites with a central administration and can receive base grant funding to support their services.

Nationally, the patient population for Rural Health Centers consist of approximately 20 percent to 30 percent Medicaid beneficiaries. Patient populations for Federally Qualified Health Centers consist of approximately 30 percent to 40 percent Medicaid beneficiaries. Vermont has three FQHCs with a total of 13 satellite practices (and two newly approved FQHC applications

expected to begin operations in December, 2005) and 18 RHCs. Medicaid beneficiaries represent 20 percent to 40 percent of the RHC patient population (yet these practices have seen as high as 70 percent) and 50 percent to 60 percent of the FQHC patient population respectively in Vermont.

The Vermont Coalition of Clinics for the Uninsured

The Vermont Coalition of Clinics for the Uninsured (VCCU) is an association of nine free medical clinics and one free dental clinic serving the needs of Vermonters without medical and dental insurance and without the means to pay for their health care. The clinics, governed by community-based boards of directors, are located throughout the state and are supported by the work of volunteers, community hospitals, local fund-raising and an annual grant from the State of Vermont. Each clinic offers free primary health care and/or referral services through two different program models: the Volunteer Model and the Integrated Model.

Volunteer Program Model. The majority of VCCU clinics are traditional free clinics. They operate as free-standing health care facilities, staffed by medical volunteers. Services are offered evenings, weekly to several times a week. Several volunteer-model programs are moving towards the integrated program model, and one clinic operates as both.

Integrated Program Model. Clinics using the integrated model work through local hospitals and medical care practices to integrate their clients into the mainstream provision of health care services. People are screened for eligibility in assistance programs including hospital affordable care programs and Medicaid extension programs. Clinics using the integrated model are staffed by a case manager who refers patients directly to participating primary care practices, which then become the patients' "medical home".

The majority of free clinic patients are women and many have not received health care for years. Currently, Women's Health Clinics are offered one to two times a month at each evening free (volunteer model) clinic and are staffed by women health care providers (nurse practitioners, gynecologists). Services provided include STD testing, pap tests, referral for (free) mammogram, family planning counseling, referral for specialized care and further testing, and access to medications. The free clinics have access to a broad range of services that range from specialized medical care to in-patient hospital care. Each program is able to refer people to its local hospital for care. The hospitals have expanded their free care policies to accommodate referrals from the free clinics.

In addition to the community hospitals, FQHCs and RHCs, Planned Parenthood of Northern New England also plays an important role to ensuring access to reproductive care. Family planning services are also described as a "keystone" in reaching a national goal aimed at achieving planned, wanted pregnancies and preventing unintended pregnancies. Planned Parenthood of Northern New England (PPNNE) is a three-state integrated network of primary gynecological care serving Maine, New Hampshire and Vermont. In Vermont, PPNNE is the largest single statewide primary gynecological provider overseeing fourteen health centers in twelve of Vermont's counties and serving over 10,000 men and women annually. Primary gynecological services include clinical care, screening, evaluation and counseling for women ages 13-65, with particular attention to the aspects of reproduction and sexuality. Some of the services offered include:

- Annual physical examinations with Pap tests and follow-up as medically necessary
- Cancer screening
- Contraceptive counseling and provision of a wide variety of the latest in contraceptive technology.
- Diagnosis and treatment of sexually transmitted infections and HIV testing and counseling
- Options counseling for unintended pregnancies with first-trimester abortion services in three counties.
- Prenatal services and childbirth education, vasectomy services, gynecological surgery at some sites.
- Teen walk-in clinics
- Community education and information programs on reproductive and sexual health. Provides educational consultation and services to over 500 Vermont schools and social service agencies.
- Websites with information about reproductive health, sexuality, and healthy interpersonal relationships.
- Male Initiative: use of varied strategies (outreach, website, public media) to offer information to men aged 18-24. The goal being to educate young men in issues of sexuality and how to develop healthy relationships. A comprehensive website has been developed and is routinely maintained and updated with research-based information on sexual health – www.TheManPhone.org

In 2003, a family planning needs assessment was conducted by VDH in collaboration with Planned Parenthood of Northern New England. Quantitative data was gathered and focus groups of both men and women were conducted. Findings delineated major issues as intimate partner or sexual violence, unintended pregnancies, the need for better access to emergency contraception, and the need for better collaboration between providers of gynecological care and primary care providers. Certain groups of women were identified as needing specific supports including refugee women, minority women, and women either in the state correctional system or in prison. Also discussed was the need for better information for men about sexuality and reproductive health. These issues are also reflected in other data gathering efforts for this assessment and included in the final themes and Ten Priority Goals (Section 5).

4.1.1. THE STATE OF PRIMARY CARE WITHIN VERMONT'S SYSTEM OF CARE

Vermont's success in health care access and coverage issues is partially do to its liberal insurance coverage in terms of scope of services and insuring our vulnerable/priority populations as well as assuring that adequate systems are in place at the community level to support primary care access. Although in some regions of the state there may lack the capacity to support all of our communities' needs for health care services, those needs are being identified and strategies developed to address the inadequacies appropriately.

Programs of the Office of Vermont Health Access

The Office of Vermont Health Access (OVHA) operates its own "managed care organization" called Primary Care Plus (PC+) for the participants in the Medicaid related programs. This

includes assignment of a primary care case manager, development of patient care standards, and monitoring and reporting on those standards (HEDIS and others). They have used the "Periodicity Schedule" developed by the Department of Health, Division of Community Public Health as the standard for care for children and are very interested in a similar effort for women. Approximately 60,000 Vermonters are enrolled in PC+.

Private Health Insurance

In 2000, a survey of health insurance coverage by the Vermont Department of Banking, Insurance, Securities and Health Care Administration found that 60 percent of residents were covered by a private group plan, and 30 percent either Medicare or Medicaid. It is unknown what percent of those with insurance hold policies that do not include preventive and primary care services. Because of Vermont's high eligibility level for enrollment in Medicaid, many families are able to use both Medicaid and private insurances to create a more comprehensive system for coverage – this is especially important for those families with children with special health care needs who have high medical bills and need to pay for a variety of expensive support services and equipment.

Physician Workforce

Overall Vermont has done well in attracting and retaining primary care physicians in the state, however, the state continues to experience poor geographic distribution of physicians particularly in our rural remote areas. Demand for physician services are driven by a multitude of personal, technological and policy related factors which make predicting future shortages difficult. The Council on Graduate Medical Education and the American Association of Medical Colleges speculates that there is growing evidence of a future physician shortage.

The 2002 Physician Survey published by the Department of Health reports the following on physician work force:

Primary Care

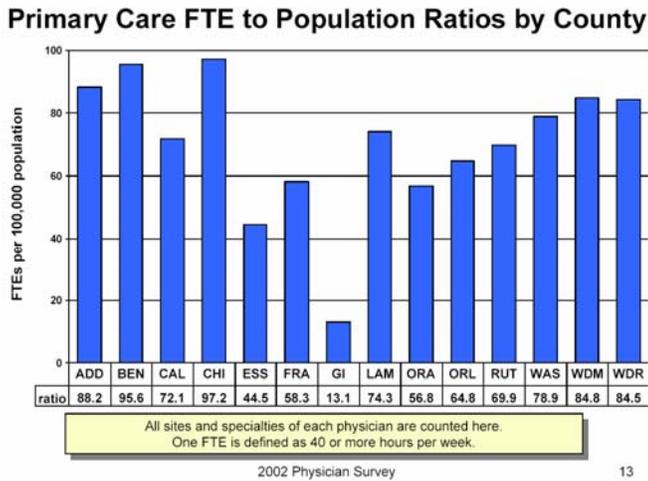
- 40% (628) worked mainly in primary care, including:
- 17% (259) in family practice
- 13% (198) in internal medicine
- 4% (68) in OB/GYN
- 7% (103) in pediatric primary care
- There were 80.1 primary care FTEs per 100,000 population

Changes Over Time As Compared With 2000:

- There are 43 more primary care physicians (20.7 FTEs).
- There are 42 more specialty care physicians (44.6 FTEs). FTE increases were especially in Anesthesiology and Radiology.
- Primary care FTEs increased from 77.6 to 80.1 FTEs per 100,000 population.

The suggested average of physician per population ratio is 78 per 100,000. Seven of Vermont's fourteen counties fall below the standard.

Figure 9. Primary Care FTE to Population Ratios by County



Statewide, there were 78 full-time equivalent (FTE) primary care physicians per 100,000 people in 2000. This was up from 71 FTE physicians per 100,000 people in 1992 and meets the suggested average of 78. Vermont continues to make slow but steady progress in increasing the number of physicians available to provide primary care. In 2000, five counties had an adequate physician-to-population ratio. Three counties, compared to four in 1998, had limited need. Six counties had a severe shortage of primary care physicians; this is unchanged from 1998.

Nursing Workforce

In 2000 the Vermont Blue Ribbon Nursing Commission was appointed by the Secretary of the Vermont Agency of Human Services, in January of 2001 their report: *A Call to Action: Addressing Vermont’s Nursing Shortage*, was developed. The report outlined a number of salient supply, demand, recruitment and retention issues facing the Vermont healthcare environment including the impact of the aging workforce, increased utilization of nurses and a shift to nurses spending more time performing administrative duties and less time caring for patients. Commonly, other issues relevant for nurses are the unhappiness with many aspects of the work environment including staffing levels, heavy workloads, increased use of overtime, lack of sufficient support staff, inadequate wages, inflexibility of their schedules and feeling a lack of professional respect.

The UVM Office of Nursing Workforce Research, Planning and Development conducted a relicensure survey in 2002 and reported that the mean age of registered nurses was 47 years, with 76% over 40 years. In addition, 22% reported they were ‘somewhat likely’ or ‘very likely’ to leave their position in the next 12 months. The Bureau of labor statistics reports that nationally, registered nurses constitute the largest healthcare occupation, with 2.3 million jobs. More new jobs are expected to be created for registered nurses than for any other occupation. These job opportunities are expected to be very good and the employment of registered nurses is expected to grow faster than the average for all occupations through 2012.

Vermont's response to this report on nursing workforce issues has included the following:

- Create a Center for Nursing located at the University of Vermont in collaboration with the Vermont State Colleges to address ongoing supply, education, practice and research.
- Form a state-funded Vermont Nursing Education Loan Forgiveness Program. Form a state-funded Vermont Nursing Education Loan Forgiveness Program. The UVM AHEC Program is currently administering Educational Loan Repayment for nurses while VSAC is administering a Loan Forgiveness Program for nurses in the form of scholarships.
- Develop an aggressive fundraising effort to raise scholarship support for nursing students from private sources. (Freeman Scholarship)

Beginning work has been done on the following recommendations and continued efforts in these areas are needed:

- Establish a partnership between the State of Vermont, health care providers, educators, and other health care partners to fund a comprehensive program to promote the profession of nursing.
- Increase state funding to expand nursing education programs so they can prepare more students.
- Increase nurse salaries to retain current nurses and attract new nurses into the profession.

Oral Health Services

The 2003 Dentist Survey published by the Department of Health reports the following on dentist work force:

- There were 367 dentists working in Vermont
- 80% were primary care dentists, including: 284 in general dentistry; 9 in pediatric dentistry
- 16 percent work 40 or more hours per week; 59 percent work between 30 and 40 hours per week.
- The 367 dentists correspond to 280.8 Full Time Equivalents (FTEs)
- 194 of the dentists are 50 or older, and 129 of these are 55 or older.
- 7 of the 9 pediatric dentists are 50 or older.

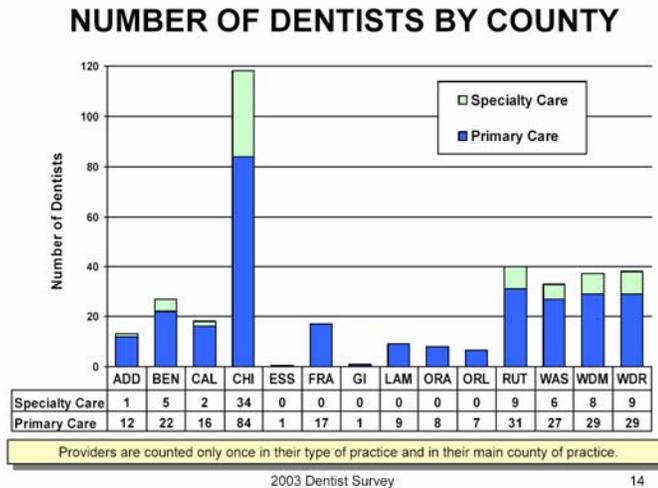
As compared with 2001:

- There are 11 fewer dentists in the 45 to 54 age range, and 27 more dentists 55 and older
- Fewer dentists are working 40 hours or more, and fewer are working at more than one site
- There are only 3.3 more FTEs in primary care, some areas have seen a drop in primary care
- There has also been an overall drop in specialty care FTEs

- 9Percentage accepting new patients has increased, and weeks wait for an appointment has decreased

There are no nationally recognized standards for dentists to population ratios therefore the state relies on other types of indicators such as proximity to retirement, geographic distribution, percentage of practices accepting new patients, and patients by payment type. The 2003 Dentist Survey reported the following distribution of dentists in the state:

Figure 10. Number of Dentists by County



Mental Health Services

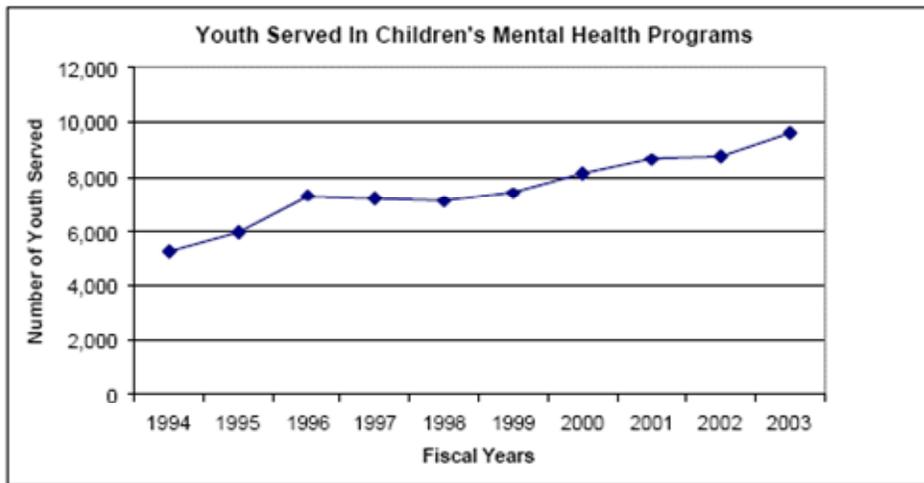
Access to mental health services is a priority state concern. Mental health is seen as the successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity; from early childhood until late life, mental health is the springboard of thinking and communication skills, learning, emotional growth, resilience, and self-esteem. (A Report of the Surgeon General on Mental Health, 1999) The National Survey – Children’s Health data shows that 70 percent of Vermont parents report they have children with current emotional, developmental, or behavioral problems who received some type of mental health care during the past year. This number is statistically higher than the US white, non-Hispanic figure of 64.7 percent. Population-based data is scarce for measures of children’s mental health, and this data will help in understanding of the overall mental and emotional health status of Vermont’s children.

While quantitative indicators of the progression of children’s mental health are not as numerous, several key informants indicated a strong effort to provide mental health services in a comprehensive and family-centered manner. Initiatives that include the collocation of social workers and mental health counselors were cited as models that may provide important insight to how to better address the needs of children. Similarly, progress in developmental screening and asset based approaches by pediatricians are encouraged and supported by the work of the

Vermont Child Health Improvement Project (VCHIP), in collaboration and partnership with numerous other agencies and organizations, both state and not for profit.

Given the significant strengths, accomplishments and ongoing efforts, key informants underscored that there is simply not enough capacity in this area of children’s health and that improvements in the quality of what exists are equally important. Data from the Hospital Community Assessments performed under Act 53 corroborate this theme – community residents being concerned about the lack of mental health services for both children and adults. Several indicators support these concerns regarding capacity and need as demonstrated by the following graphs.

Figure 11. Youth Served in Children’s Mental Health Programs



Source: The Vermont State System of Care Plan for Children, Adolescents & Family Mental Health for State Fiscal Years 2005-2007

Figure 12. Percent of Children Needing Mental Health Treatment & Percent Served by Designated Agencies

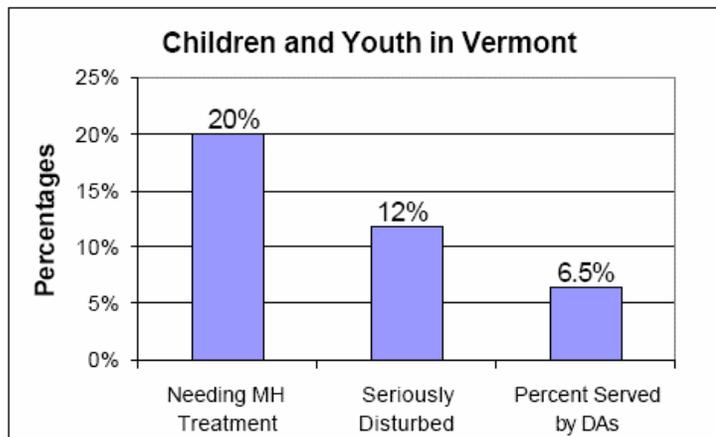
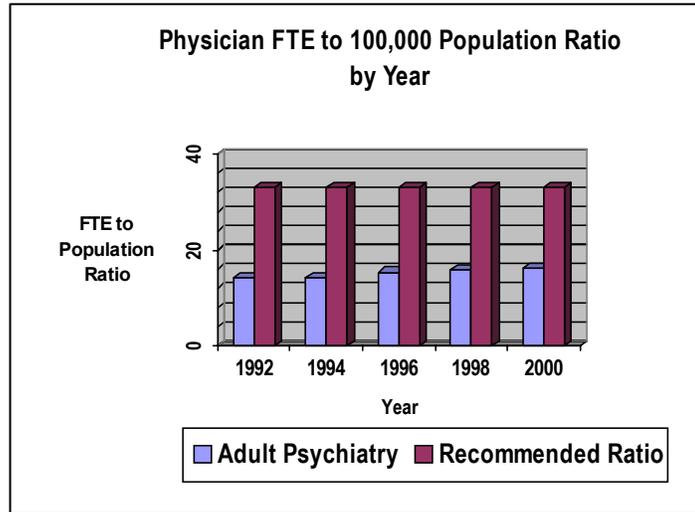


Figure 13. Physician FTE to 100,000 Population Ratio by Year



Source: Vermont Department of Health 2000 Physician Licensing Survey

These graphs illustrate that there is outstanding and growing need for mental health services (both diagnosed and undiagnosed). The state capacity, in terms of psychiatry workforce is inadequate. By the Graduate Medical Education National Advisory Council standards, child psychiatry is at approximately 20 percent of capacity for children and 50 percent of capacity for adults. Although the American Academy of Child and Adolescent Psychiatrists recommend a board certified child psychiatrist, some adult psychiatrists provide services for children. In Vermont, the adult psychiatry capacity is too low to expect that the adult psychiatry workforce can have an impact on meeting the gap in capacity for children’s psychiatry. While the data shows the discrepancy between services Designated Agencies provide to children and the need in Vermont, additional data regarding services provided by other mental health professionals outside the Designated Agencies’ system should be examined to understand the total unmet need.

Retreat Healthcare (formerly The Brattleboro Retreat) has traditionally offered general inpatient, residential, and outpatient psychiatric treatment for children and adolescents. However, in June, 2005, the facility opened a new program specializing in the needs of children and pre-adolescents. The specialized services are designed to provide short-term, specialized inpatient care for children ages 5-12 with serious social, emotional, and psychological disorders that have led to disruptive and maladaptive behaviors and relationships. Also available is a residential program for women who are experiencing drug and alcohol addictions – treatment is provided in an apartment living spaces so the mothers and their children can be together during the treatment regimen.

In Vermont, community mental health services for children and families are offered through state “designated agencies,” which are community based agencies receiving certain financial supports from the state. The agencies provide core services such as immediate crisis response, clinic-based treatment, outreach treatment, family support, and consultation. Also, the VDH

Office of Drug and Alcohol Abuse Programs funds communities and schools to offer a variety of research-based prevention programs for children and youth.

As a result of the qualitative and quantitative data analysis, there are several findings are noted:

- Because the adult and child psychiatry workforce is not expected to increase dramatically, both the recruitment of additional psychiatrists and alternative ways of meeting children’s mental health needs will need to be explored.
- There is a need to increase and improve quality improvement and quality assurance activities regarding:
 - Standards and evidence-based practice
 - Systems
 - Professional skills
- There is a need to increase mental health screening, prevention and treatment
- Promote family centered practice and philosophy

4.1.2 CHILDREN WITH SPECIAL HEALTH CARE NEEDS

The VT CSHN program takes literally the mandate to “provide and promote” and continues to fill the gaps in direct services for CSHCN through providing team-based specialty care, through direct employees and through subsidies and grants to other agencies.

Primary Care

CSHN does not provide primary care services for CSHCN. However, the statewide Child Development Clinics are an example of critical consultative supports to primary care practices, in the diagnosis, evaluation, treatment planning, and, to a lesser degree, follow-along care, for children with neurodevelopmental conditions or other conditions affecting overall development. New referrals to CDC were up by 6.3 percent in 2004 (438 new referrals). Similarly, the statewide early intervention system, Part C, Family, Infant and Toddler Program functions as a community-based assessment and treatment team in partnership with primary care. Most recently available data indicates that 3.1 percent of the birth to three population were receiving services through and IFSP at a point in time. (More discussion about supports to the primary care system may be found under Infrastructure). Even more specifically, CSHN identified the unmet need for child psychiatric services for children with developmental delay and/or chronic conditions (particularly hearing loss); for the last three years CSHN has contracted with a child psychiatrist with this area of expertise, who is fluent in sign language as well, to provide consultation and pharmacologic treatment when indicated, in collaboration with a social worker, remaining available to the primary care provider (PCP) after the child is stabilized and returned to primary care. Through Vermont’s Medical Home project, difficulties with timeliness, and gaps, in communication between primary care, specialty care, and families, were identified as areas needing improvement. Clinics have implemented fax-to and fax-back forms for PCPs. CSHN is holding lunch meetings with PCPs, at this time with those involved in the Medical Home project, to explain CSHN services face-to-face and to improve connections between practices and regional CSHN nursing and social work staff.

CSHN also provides primary care significant *screening support* through the Hearing Outreach Program, itinerant OAE screening clinics held at 13 sites around the state on an at least monthly basis. Although HOP's principal function is to provide timely follow-up for newborn hearing screening and for newborn with risk factors of later-onset hearing loss, it began as a resource for audiologist-conducted hearing screening for young children and hard-to-screen children, with most referrals coming from PCP offices.

Specialty Care team

CSHN is a organizer, staffer, and subsidizer of multidisciplinary team-based specialty care clinics in partnership with tertiary care centers, FAHC and Dartmouth Hitchcock Medical Center in NH, through which any VT child, birth to age 21, with an eligible condition may receive care. Clinics and teams include: CDC; cardiology, orthopedics, myelomeningocele, hand, neurology, cystic fibrosis, craniofacial, juvenile rheumatoid arthritis, metabolic. In addition to the pediatric physician specialists, teams may include nurses, medical social workers, physical therapists, speech therapists, nutritionists—the “enabling” members of the team who coordinate recommended care and follow-through with families.

Since Vermont is a small population, pediatric subspecialties tend to be represented by one (at most) physician at a time; not uncommonly, our state will be without a pediatric subspecialist in one or more fields (e.g., there is currently no pediatric urologist, and our pediatric neurosurgeon is quite new). At the same time, major centers such as Boston are usually well-supplied and well-advertised with specialists. A continuing challenge is how to support family choice of provider, while managing limited resources for the entire CSHCN population. Vacancies will always necessitate our support of out-of-state (and sometimes, with our proximity to Montreal, out-of-country) services.

Regional Care Coordination

Like many CSHCN programs historically, CSHN teams tended to be built around particular specialists and conditions. With the support of a SPRANS grant originally, CSHN staff expanded to regionally based, more “generic” support, including nurses and social workers. At the same time, other models of publicly funded care coordination have proliferated, through Part C, insurance payers, mental health and developmental services Medicaid waivers, EPSDT pilot programs, and with the very recent AHS reorganization, new field directors and “navigators”. Parents (see Section 3) are very clear that they will always remain their child's care coordinator, although they are happy for help; and the expansion in sources and types of care coordination, even the more generic ones, have not always felt helpful. Our capacity/challenge—together with our partners-- is to decrease the communication distance between the families in the center, their medical homes, and the care coordination potential we represent through our staff and resources. It is essential that the planners—wherever they may sit—include families, primary care, and CSHN in the discussions. “One-stop shopping” and “One door” are not ends in themselves, and may not always acknowledge the level of expertise and experience families know they need.

Health care financing safety-net

CSHN continues to offer enrolled families financial assistance with after-insurance gaps for health care prescribed or authorized through CSHN. Over the decade, eligibility for VT Medicaid for children has expanded, allowing CSHN Title V funds to be reserved for families with inadequate insurance. However, Medicaid has instated premiums for higher income families, and these premiums are increasing. We have seen some families lose their Medicaid through non-payment, shifting their CSHCN costs to CSHN (and losing health care coverage for their other children entirely). Vermont is actively pursuing a Medicaid “Global Commitment” waiver, to increase discretionary use of Medicaid funding while promising to live within an absolute cost limit. The impact of this plan for CSHCN is unknown. The CSHN safety net is stretched by such cost shifts as well as by overall budget reductions; for example, SFY 06 CSHN Respite funding has been reduced by \$80,000 (32%).

4.2 POPULATION BASED SERVICES

WIC and EPSDT

Vermont is proud of its long history of a strong WIC and EPSDT program. These programs have historically been able to serve not only all of their eligible population, but also have served a high percent of Vermont’s children due to the high percent of Vermont families eligible for Medicaid. The Special Supplemental Nutritional Program for Women, Infants, and Children (WIC) began in Vermont in 1974 and has expanded its original vision of supplemental foods and nutrition education for families with young children to include a broad array of nutrition-related education and support activities, such as breastfeeding promotion and community nutrition education sessions. WIC has been a leader in promoting sound public health nutrition practices using a broad approach throughout the state. The Early Periodic Screening Diagnosis and Treatment (EPSDT) program has also brought leadership to issues of preventative health practices for children. Examples of major EPSDT initiatives have been collaboration with schools on health education programs and working with clinicians on preventative health practices. Another major program, Healthy Babies, Kids and Families, is now administered out of the Department (as of 2004) and continues a close association with WIC and EPSDT.

Breastfeeding

Following the release of the Breastfeeding Legislative Study Commission Report in 2001, Vermont WIC applied for and received a grant from USDA to revitalize Vermont's local breastfeeding coalitions, establish a statewide breastfeeding network, and develop a work plan to improve breastfeeding rates using a social marketing approach. Many of the activities proposed in the work plan continue to be implemented, and new ideas have been developed and put in place to support all breastfeeding families, not just those on WIC. Some examples include

- Implementation of the breastfeeding friendly employer project, which recognizes businesses and other employers who support breastfeeding employees and the breastfeeding friendly business project, recognizing businesses that are particularly welcoming to their customers who are nursing

- Development of a training team to provide on-site training for medical practices, child care centers, employers and others in how to support breastfeeding families
- Expansion of a project that provides hospital grade electric breast pumps to WIC moms who are returning to work or school, and who would not be eligible to have a breast pump paid for through health insurance
- Widespread use of the "Give a Breastfeeding Mom Some Loving Support" slogan and supporting materials, including use of the Loving Support logo on WIC home delivery trucks, paid advertising in parent-oriented giveaway newspapers, PSAs, signs on public busses, and many local projects.

Women's Health

Women's health services out of VDH include an overall approach to educate women about healthy lifestyles and removing barriers for women to get recommended preventative screenings. The WISEWOMAN program and Ladies First Programs such as the Breast and Cervical Cancer screening program, the CDC-funded WISEWOMAN, and Ladies First coordinate to offer payment, transportation and other supports to lower income women ages 40-64 to enable them to get screenings for cancer or heart disease such as Pap tests, annual mammograms, clinical breast exams, blood pressure, cholesterol, and diabetes. Screenings are coordinated so that they are provided by the woman's own health care provider.

Addicted Women and Mothers

The Vermont Department of Health divisions of Community Public Health (CPH) and the Alcohol and Drug Abuse Programs (ADAP) are responding to a growing maternal child health concern regarding high risk chemically addicted pregnant and parenting women. As the client is identified, she may be referred to Fletcher Allen Health Care/University of Vermont's Comprehensive Obstetrical Service (COS) for prenatal care including screening, nutrition, and referrals to substance abuse treatment. Consultation with a neonatologist occurs at 28 weeks EGA. COS has become a model and resource for this population around the state. By joining efforts, these divisions and many community partners such as mental health, child welfare, hospitals, home health agencies, pediatric and obstetrical practices, corrections and substance abuse providers are developing a state wide system of care for these mothers, children, and families. ADAP and CPH are working to support communities in the development of community based response teams. These teams are being modeled after the Healthy Babies Kids and Families community steering committees and use a child protection empanelment process to protect family confidentiality. Several public health district offices have taken the lead in their communities with this effort. Goals for this year include the development of community response teams in all districts, design protocol implementation teams to work with the Central Office and district offices to develop curriculums, identify barriers and train on location as needed, hold ongoing conference calls/meetings with districts to identify services barriers, foster communication and support and make recommendations for service delivery and system change.

Healthy Weight and Exercise – Fit and Healthy Kids

The Fit and Healthy Kids initiative is a coordinated comprehensive approach to promoting Healthy eating and increasing physical activity among children and their families. It includes interventions for individuals, schools, and communities with the ultimate goal of reducing the burden of chronic disease in Vermont. Fit and Healthy Kids is a comprehensive approach to addressing a complex issue that involves multiple partners and stakeholders representing government, healthcare, schools, business groups, employers, insurers and community groups. A survey of towns in Vermont (by VDH and University of Vermont Center for Rural Studies) will give information on infrastructure and available facilities that support exercise for the town's residents.

Some of the many activities taking place include:

- Run Girl Run: A year round program designed to give middle school girls the information, training, confidence, and support to make healthy lifestyle changes;
- SPARK: Sports, Play, and Active Recreation for Kids, a new after school based program shown to increase physical activity in youth ages 5-14.
 - Both SPARK and Run Girl Run work to develop lifelong physical activity by giving youth the skills they need, and developing habits early in life.
- Fit WIC: Activity guides providing activities to foster children's health and development through daily active play.
- Spring and Fall Daylight Savings Challenges: Annual challenges encouraging school age youth to Move More, Eat More Colors (Fruits and Vegetables) and Turn it Off! (the TV).

Obesity prevention efforts must target all Vermonters not solely our youth. Increasing capacity in this area requires multiple partners and stakeholders. A state nutrition action plan committee has been convened comprised of Vermont nutrition education agencies. They are working collaboratively to identify a common nutrition messages that can be delivered across multiple venues.

Vermont is also one of twenty-eight states funded by the Centers for Disease Control to develop nutrition and physical activity programs for the prevention of obesity and related chronic diseases. Capacity building under this grant includes developing a state plan for obesity prevention, and developing interventions based on high priority needs. Advisory group meetings and findings to date have identified the need to target families for obesity prevention. It is essential that communities provide opportunities for activity and healthy eating, and that family members provide each other support for making healthy choices.

The ultimate goal of obesity prevention initiatives is to increase healthy behaviors including daily physical activity, and good nutrition including at least five servings of fruits and vegetables daily, so that all Vermonters have the skills and abilities to balance calorie intake and expenditure to achieve or maintain a healthy weight.

Asthma

The Asthma Program, begun in 2001 (via a CDC planning grant), has achieved its initial goals of developing an asthma surveillance system and creating a state asthma plan. In 2003, the program began a three year implementation phase. Activities include: 1) Creation of three brochures targeting children 0-5, 6-13, and teens, describing how to live a healthy life with asthma. The brochures have been distributed to all Vermont physicians, hospital emergency rooms, VDH clinics and school nurses. 2) Creation/distribution of Vermont Asthma Action Plan to all physicians and school nurses. 3) Development/distribution of radio spots. 4) Placing resources for parents on VDH website. 5) Distribution of posters about asthma and the link to environmental tobacco smoke and the Vermont Quit Line to all Vermont childcare providers. 6) Supporting ten Vermont children with asthma to attend a summer camp for children with asthma. 7) Research and development of a self-management tool for use by children.

Increased surveillance capacity has enabled better data to be obtained from hospital discharge data system including Emergency Department data. Progress has also been made in obtaining data from Medicaid via a report on the PC Plus population from the Vermont Program for Quality in Health Care. The Behavioral Risk Factor Surveillance System (BRFSS) continues to be a valuable tool for measuring asthma prevalence as well as measures of morbidity and treatment-seeking behaviors in adults. For children, Vermont has included questions by proxy on the BRFSS (years 2001, 2002, 2003, 2004, and 2005) to assess childhood asthma prevalence. Unfortunately, due to the formatting of the questionnaire, there have been difficulties in weighting the data for years 2001-2004. In 2005, a “Random Child Selection” module was added to the questionnaire which will enable us to get a reliable measure of childhood asthma prevalence through the BRFSS. The Asthma Program was also able to include a question on lifetime asthma diagnosis, in addition to several questions on asthma morbidity and treatment-seeking behaviors, on the Youth Tobacco Survey, asked of middle and high school students in 2004.

In late 2004, the Asthma Program was incorporated into the Blueprint for Health, Vermont’s statewide initiative to improve the care of those with chronic conditions. Based on the chronic care model, the Blueprint for Health relies on community supports, improved provider practices, better information systems, and enhanced patient self-management to improve health outcomes.

Immunizations Program

Vermont’s Vaccines for Children(VFC) Program has 532 providers enrolled at 177 provider sites statewide. To date, 120 sites have been visited to assess vaccine storage and assure that every dose of vaccine administered is fully viable, documented correctly, and administered to a VFC-eligible child. The Assessment, Feedback, Incentives and Exchange (AFIX) Program has evaluated immunization coverage rates for 19-35 month olds in 103 private provider sites in partnership with the Vermont Child Health Improvement Program (VCHIP) to identify barriers to full immunization of children in their practices with the goal of reduction or elimination of barriers. Both of these quality assurance programs function to eliminate or reduce the incidence of vaccine-preventable diseases in Vermont.

The Vermont Immunization Registry is continually growing in its capacity to track eligibility for the Vaccine for Children (VFC) program while recording immunizations as well as their contraindications and objections voiced by parents. Birth data is entered automatically within 10 days via the Vital Births data system. Currently all children born in Vermont since January 1, 2000 have demographic information entered. Forty-six practices are enrolled with 43,412 children in the registry and 13,105 have two or more immunizations recorded.

Injury Prevention

The Injury Prevention Program's priorities of reducing childhood injuries are guided by the increases in available data. Surveillance capacity as detailed in the recently completed injury surveillance plan has increased in the following areas (following STIPDA recommendations): ED data sets, development of an injury data matrix, and appropriate assignment of e-codes for injuries. Based on recent data the Injury Prevention Program has identified transport injuries, falls, poisonings and suicide as priority prevention areas for childhood injuries. In 2003, transport injuries (rate 11.0), suicide (rate 13.4) and poisonings (rate 3.5) were the leading causes of injury death for people ages 0-24. Vermont 2002 emergency department data indicates that falls (rate 3572.5), transport injuries (rate 1188.1) and poisonings (rate 318.5) are the leading cause of injury emergency department visits to people ages 0-24. 2002 hospitalization data indicates that transport injuries (rate 75.26), falls (rate 57.3) and poisonings (rate 55.8) are the leading cause of injury hospitalizations in Vermont for people ages 0-24. Planning is beginning to address the high rate of non-traffic motor vehicle crashes: in 2001, the rates for ages 14 years and younger was 11.7/100,000 and for ages 15-24 years was 20.3/100,000

The injury prevention program has been working closely with Vermont Safe Kids and VCHIP to partner on transport injury and fall prevention initiatives. The program has also been working closely with the Division of Mental Health and Vermonters for Suicide Prevention Coalition on the development of a statewide Suicide Prevention Plan. This plan is slated for completion in August 2005. The plan offers a comprehensive approach with a focus on early intervention strategies (as well as mental health and substance abuse preventative approaches).

The injury prevention program has recently established a seven member team comprised of diverse professionals to address poison prevention in Vermont. This team has met once at a regional conference and has developed an initial plan of action for poison prevention activities. The group will reconvene once a poison prevention outreach coordinator is hired (FAHC).

Child Fatality Review Committee

Vermont's Child Fatality Review Committee continues with its original focus of reviewing child deaths from abuse and homicide in addition to expanding reviews to those of unintentional injury. Recent attention has been given to deaths from winter recreational sports, ATV deaths and injuries while using all terrain vehicles, youth suicide, and deaths from illegal drugs and sudden, unexplained deaths in infants. The Committee meets annually with its counterparts in Maine and New Hampshire annually. The Committee has been participating in the planning for the national web-based uniform data base that is being developed by the National MCH Center for Child Death Review.

Minority Health

The Office of Minority Health is involved in strategic planning to develop its actions for achieving the goal of promoting minority health by promoting access to a culturally competent health care system. Specifically, the OMH aims to establish itself as a point of contact to support a cadre of state and private organizations in training on culturally competent health care services. These aspects of culturally competent care will be incorporated into the Blueprint and the Chronic Care Initiative. Collaboration on community actions for these goals will happen with Vermont's network of minority coalitions.

School Readiness

Collaborations between stakeholders in health and education have resulted in significant partnerships for improving the systems of care for young children in Vermont. Planning activities such as those from the AHS "State Team" and also the Outcomes Planning work has influenced the philosophical approach underlying the creation of the Title V Strengths and Needs Assessment. Also, the collaboration with the Region 1 states will result in one state performance measure being chosen to reflect an element of early childhood or school readiness.

The AHS 2005 Outcomes Planning document details the importance of children's participation in high-quality early care and education programs that improves their readiness for school. The report's discussions of early childhood issues are detailed as follows: Findings of the Vermont 2003-4 School Readiness Survey suggest that children who spent at least some time in a licensed child care program, registered home, preschool, or Head Start program are more ready for kindergarten than children who do not. Over the past three years, there has been a steady increase in the level of support public school districts and their local communities provide for early education. From 2003 to 2005, the number of children whose attendance at various types of preschool and child care programs was supported with public school funds has increased from 1,715 to 2,795. During the same period, the number of children enrolled in full-day kindergarten programs increased by more than 1,000.

Local communities around the state are recognizing the importance early education and care have in children's development and learning, and are expanding access to early learning opportunities. In addition, legislative incentives from 1999 have enabled an increase the number of accredited programs. The number of nationally-accredited centers has doubled (from 46 to 93), with more in the process. Also, the number of family child care providers with either a Child Development Associate (CDA) credential or with national accreditation has more than tripled (from 31 to 105). These incentives have contributed to this increase. Nevertheless, with only 8 percent of family child care providers and 15 percent of licensed centers now accredited, there is a long way to go. National research confirms the key role that teachers with at least bachelor's degrees have in providing high quality care and education for all children. Vermont's 2002 *Child Care Wage, Benefits & Credentials Survey* showed that less than one quarter of center based program staff have BA degrees; and the number of staff in home based programs is even less.

Clearly a need exists for more staff with the appropriate qualifications and degree if we are committed to providing programs to help children be ready for school. School readiness is a multi-dimensional concept that includes five domains of development: socio-emotional development, approaches to learning, communication, cognitive development and general knowledge, and health and well-being. According to teachers' ratings of their kindergarten students during the first two months of the 2003-4 academic year, only 52 percent are considered "ready" across all five domains. The percentage of children who were rated as "ready" in the 2002-3 school year was 60 percent. The decrease in school readiness can be attributed to the larger number of children who participated in the 2003-4 survey, the inclusion of a health and well-being domain (i.e., if children's learning is affected by fatigue, illness, or hunger), and/or an actual decrease in children's readiness.

4.2.1 CHILDREN WITH SPECIAL HEALTH CARE NEEDS

There have been significant changes since the needs assessment five years ago.

Newborn Bloodspot Screening

Vermont has expanded the panel of conditions from nine to 21. For the past two years, the program has worked intensely to reach the goal of tracking the screening status of all occurrent births. For the past two years, the Newborn Screening Program and Vital Records have conducted an annual retrospective match to ensure that all babies born in Vermont either received screening in the state or in another state to which they were transferred. The status of those babies who were not screened, either because of parental refusal or newborn death, were also reviewed. For both calendar years 2003 and 2004, the screening status of 100 percent of the occurrent are well documented in the Newborn Screening Program files. Not one birth was missed in this accounting – thanks to meticulous daily, weekly, and monthly quality assurance measures.

Universal Newborn Hearing Screening

UNHS was fully implemented in 2003, with the central assurance and tracking function supported by federal grants from MCHB and the CDC. Similarly, well over 90 percent of Vermont newborns are screened for hearing loss; UNHS has not yet reached the majority of home births, however. CSHN is responsible for the assurance and follow-up, overseen by a full time pediatric audiologist (through a grant to UVM; not a state position as yet), and largely implemented through the direct service of the Hearing Outreach Program, also by pediatric audiologists. As with many states, we are charged with sustaining these population-based efforts through fees, rather than grants. VDH utilizes third party billing for HOP, and are examining asking the legislature to increase the newborn screening fee to cover the remainder.

Screening

CSHN also participates in population-based screening through HOP for older children. See *Primary Care* under *Direct Services*, above. Also see developmental screening system support, under *Infrastructure*, Section 4.3.

Birth Information Network

The legislation establishing a Birth Information Network presents a new frontier for Vermont – the gathering and reporting of birth status and congenital conditions diagnosed in early childhood, with the clinical goal of assuring access to necessary services. The vision is the marriage of two parts of public health: surveillance and CSHCN system assurance. The CDC-funded Network Coordinator is presently planning for development and operationalizing of the Network. This program will greatly enhance the ability to more fully understand the type and prevalence of specific birth defects. Vermont has had a variety of systems to capture this information (birth certificates, CSHCN program data) but no one comprehensive system for gathering and analyzing the data.

A successful—but not perfect—universal newborn hearing screening story...

A baby is born at a community hospital in VT. All VT birth hospitals screen all newborns. At 2 days of age, the baby's hearing is screened and rescreened in birth hospital nursery to confirm that the baby did not pass the screen. The parent receives information about need for follow-up. The baby is discharged to home; report of NOT PASS written and added to hospital's batch of reports sent on a weekly basis to VDH (CSHN newborn hearing screening program). At 8 days of age, a report is received at VDH. At 12 days of age (after the weekend) VDH contacts mother with follow-up appointment to HOP (a VDH/CSHN clinic) at their local hospital. At 21 days of age, the baby is seen by a HOP audiologist who confirms NOT PASS in both ears. The information is given to the mother about next clinical step (referral to a hospital for diagnostic test), and resources for babies with potential hearing loss. The mother contacts early intervention program from the information given to her. Also, HOP sends letter to the primary care provider about the results.

At 27 days of age, Early Intervention (EI) program notifies VDH of baby's referral into the EI program—pending confirmation of diagnosis. At 30 days of age, the baby has bilateral mild hearing loss definitively diagnosed at Boston Children's Hospital (requires sedation and/or anesthesia for testing). The baby is referred to a VT audiologist for treatment.

At 33 days of age, VDH sends more resource information to mother about CSHN financial assistance with costs related to hearing loss. At 39 days of age, the mother calls VDH with results (already having a "phone" relationship with VDH program) and enrolls baby in CSHN hearing program. At 40 days of age, a VT audiologist notifies VDH that the baby has appointment for hearing aid fitting. At 41 days of age, the baby receives first set of hearing aids (loaners). Also, permanent aids were ordered, with CSHN financial assistance. *To be continued!*

Because the baby's hearing loss was mild, it is likely that there would be no symptoms until the baby was many months old. The baby would still have startled to loud noises as a newborn; turned to localize loud sounds at 5 months; and, would have babbled at 6 months. Not until imitative language sounds would have been expected might the hearing loss have become apparent. We know from recent studies that babies with hearing loss who initiate early intervention with hearing aids and speech therapy, by 6 months of age, have significantly better long term outcomes in language development. Most babies who do not pass a hospital screening, do pass a subsequent outpatient HOP screening. Only those who do not pass the HOP screening are referred on to the much more invasive diagnostic hearing testing done at tertiary care hospitals. The national standards for Universal Newborn Hearing Screening are: Screening by one month of age; definitive diagnosis by 3 months; and initiation of treatment by 6 months. VDH is on the right track!

Improvements suggested by this story: Even though most babies pass their initial hearing screening, and hearing loss is not a life-threatening condition, VDH could improve the timeframe for babies who do not pass, by having their results FAXed, not BATCHed and MAILED, to our program to initiate follow-up. Our HOP clinics are held monthly at most hospitals. VDH offers parents the option of going to a different site if they would like an appointment sooner, but most choose to stay with their own hospital site. If they have to miss that appointment, the wait is potentially another month. VDH is looking at increasing staff time to add capacity to our clinics. Most babies needing diagnostic testing go to FAHC (Vt) or DHMC (NH). The waiting lists were too long at these two hospitals, so the baby had to travel to Boston, where there was an opening available sooner. VDH needs to work with in-state diagnostic hospitals to revise priorities for appointments and to strategize about ways to increase capacity, including creating new centers at other hospitals with the ability for pediatric sedation and anesthesia.

The mother was the source of information feedback to the program that her baby had been diagnosed. VDH needs to find ways to improve the communication from diagnostic centers back to the "home" program—and to the primary care physician. This is currently a major topic of discussion among other states' UNHS programs as well, one which needs to balance the need for information for our public health assurance function, with the need to obtain parental permission for information sharing. There is no national consensus about where the boundary should be.

4.3 INFRASTRUCTURE-BUILDING SERVICES

As a result of the Agency reorganization, the Family Services was created. The Family Services Division works in partnership with the Department of Children and Families' (DCF) Field Services Division and the Agency of Human Services to achieve articulated outcomes for children and families. Division staff in the field and central office is actively exploring ways to realize the themes of the reorganization. The 2005 Agency of Human Services *Blue Book* identified numerous opportunities and pressures for the state. Some of the identified opportunities include:

- As a result of the reorganization, new collegial relationships are being forged within beyond the new DCF.
- A Child Safety Unit has been created to promote quality and consistency of practice in intake, report acceptance, assessment of safety and risk and substantiation decisions.
- The division will implement a comprehensive assessment process for all children entering custody, early in 2005. The goal is to improve the quality of planning for children and their families, thereby improving outcomes.
- Family Services Division staff are working together to focus on the need for permanent connections for all children leaving official care and supervision, in the form of one or more meaningful relationships with adults. Staff around the state has volunteered to work in creative ways to achieve this goal.

Some of the pressures identified include:

- Increases in substance abuse and domestic violence in Vermont negatively affect children, youth and families—and precipitate DCF interventions. Often, these families' circumstances result in neglect or risk-of-harm substantiation.
- Implementation of child abuse registry checks for employees who will care for children or vulnerable adults has resulted in as many as 100 checks per week, generating increased work for staff.
- Children and youth committed to the care and custody of the state are increasingly in need of significant and on-going mental health and substance abuse treatment.
- The custody population continues to age: over 60 percent of children in custody are 12 and older. This requires adjustments to our current systems for placement and treatment.
- Title IV-E eligibility and receipts continue to decline, as federal law has "frozen" income standards at 1996 ANFC limits and 2001 regulations.
- Social work practice and on-going staff development will need to be better geared toward assuring defined outcomes for children and families.
- Assuring adequate numbers of resource families who have the necessary skills to nurture children with complex behaviors and needs will continue to be a challenge.
- Currently, the state provides supports to over 1,200 adopted children with special needs. These children, often adopted at an older age, continue to need supportive services after adoption. Resources have not kept pace with this need.

The document also identified accomplishments. Those include:

- In July 2004, Family Services Division (FSD) became the first state child welfare agency to successfully complete a program improvement plan focused on safety, permanency and well-being for children and families served.
- Seven district reviews have been completed as part of the division's new quality assurance system. District reviews engage staff, community stakeholders and clients in assessing the quality of practice and collaboration. Strengths have been identified. A key challenge across all districts is high workload.
- Across the state, the use of Breakthrough methodology for rapid change is resulting in more successful recruitment of foster families to care for children in custody.
- Project Family, a joint venture between DCF and the Lund Family Center, is focusing on finding adoptive homes for older children, and on improving timeliness of adoptions. DCF finalized 217 adoptions in 2004, the most ever in a calendar year.
- We have established a partnership with the Vermont Student Assistance Corporation to ensure that young adults formerly in custody receive the benefits for higher education offered in 2004 by Emily's Bill.
- A partnership with VCHIP has focused on early assessment of health needs. It has been very successful in four districts. Key to this success has been the co-location of Department of Health public health nurses in FSD district offices.
- New materials developed in collaboration with KidSafe in Chittenden County are enhancing our training of mandated reporters.
- Our ongoing partnerships with Vermont congregations result in the provision of concrete supports for children and families, as well as less tangible benefits such as mentoring opportunities.

The establishment of the Child Development Division (CDD) provided an opportunity to reevaluate the array of child development services and the funds supporting them, and to create a true continuum of primary prevention and early intervention services by establishing a system to support all children and families at the level of intensity needed and desired.

- STARS- Step Ahead Recognition System: The graduated system for childcare quality is based on a 5-star rating system. Incentives have been secured through private foundations and businesses.
- The establishment of the Northern Lights Career Development Center: Provide coordination and integration of professional development opportunities in Vermont, resulting in a higher standard of instruction and more consistent support for professional development.
- The creation of the Vermont's Alliance for Children - Building Bright Futures: This initiative will lead to an infrastructure for the early childhood system that will pursue private as well as public funding to enhance early care, health and education services.
- Aligning the Family, Infant and Toddler Program, the Children's Upstream Services, the Early Childhood Mental Health Program and Healthy Babies, Kids and Families in one division allows for implementing a model for early intervention services that includes designated early intervention teams in each region of the state.

There are also pressures within the area of child development and the state system. Workforce is a statewide issue among many professions. A lack of qualified candidates and non-competitive salaries are prime reasons for an unstable and inadequate child care workforce. Limited higher-education opportunities in Vermont for early interventionists and allied health specialists, such as speech therapists, have resulted in serious shortages of therapists and early childhood special educators throughout the state. Access to services is another pressure. The demand for regulated child care continues to exceed the supply of care. Therapeutic child care programs are established in only four of the twelve AHS districts; and, the lack of qualified staff limits access to appropriate early intervention services for children with special needs. The state childcare subsidy rates are far below market rates for most care statewide. This is having an adverse impact on access to care.

Pressures

Families with children are found in increasing numbers in homeless shelters. Homeless shelters, Community Action Agencies and other service providers struggle to find decent housing – at any price – for the large number of working, but homeless, families. Living in shelters and being homeless has a negative effect on children. As shelters reach capacity, more and more Vermonters are turned away, ultimately living on the streets or on someone’s couch. Transitional housing with supportive services can alleviate some of this pressure. Rising housing costs are a huge burden. Many Vermont families pay 50 - 75% of their monthly income just to have a place in which to live. As housing costs continue to rise, more and more working Vermonters are caught in this housing “squeeze.” Poverty is a nagging problem in Vermont. During the '90s, the number of Vermonters at or below the federal poverty level (currently \$18,850 for a family of four) rose by 3.6%. In the 2000 census, there were 48,483 people in poverty causing constant pressure on our emergency service delivery system.

4.3.1 STRENGTHS IN STRATEGIES

Many times within the MCH community, the cues that are followed are based on lessons learned from Vermont’s notable programming for children with special health needs. Among those cues is the medical home model. A medical home addresses how a primary health care professional works in partnership with the family/patient to assure that all of the medical and non-medical needs of the patient are met. A medical home is defined as primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective (American Academy of Pediatrics). Numerous indicators demonstrate that Vermont is progressing towards a system of care for children in which a medical and dental home is supported and effective.

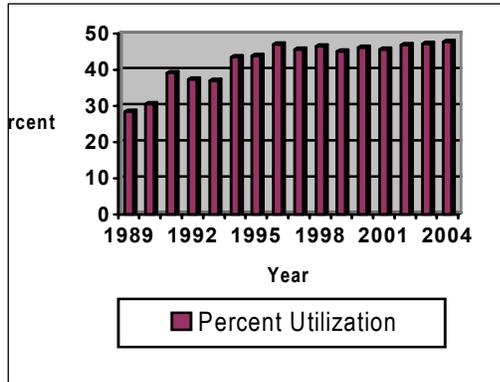
- Immunization rates are upwards of 86.9 percent according to 2003 CDC National Immunization Program reports for Vermont.
- Uninsured rates for children between the ages of 0 – 17 are 4.2 percent.²⁰

²⁰ Banking Insurance Security & Health Care Administration. Family Health Insurance Survey 2000

- Between 97 percent and 100 percent of all pediatricians currently are accepting new Medicaid patients.²¹

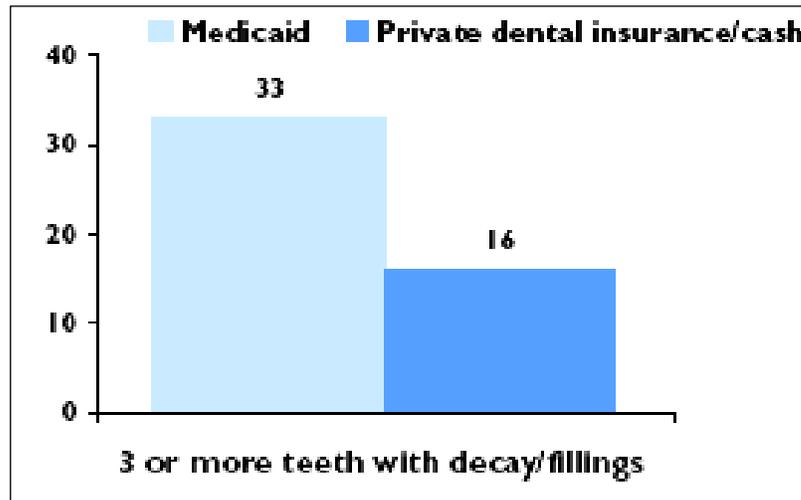
Qualitative information obtained through key informant interviews indicates significant effort being put toward promoting and evolving the medical home concept, broadening the scope of services which are available to support the medical home and the populations served. However, a few key data elements indicate that there are some noteworthy gaps in children’s ability to obtain and maintain a dental home. The following two graphs are indicative of the problem.

Figure 14. Percent of Medicaid Eligible Children Utilizing Dental Services by Year



Source: Vermont Department of Health 2004 Medicaid Utilization Data

Figure 15. Caries Experience: Children with Medicaid Coverage & Private Dental Insurance/Cash



Source: Vermont Department of Health, Oral Health Survey 2002-2003

These data illustrate that financial access through public insurance coverage does not predicate access or utilization of dental services by children enrolled in public insurance. In addition, the

²¹ Vermont Department of Health, Vermont Physician Licensing Survey, 2000.

second graph indicates disparities between public insurance and private insurance. While additional data through the Vermont Department of Health Oral Health Survey show the same rate of active decay between publicly and privately insured children, the experience with caries and decay is higher among those publicly insured. What the data may indicate is that Medicaid eligible children have the same amount of active decay as their non-Medicaid counterparts. However, Medicaid eligible children have more of a history of decay than their non-Medicaid counterparts; although both populations get their decay treated at the same rate, Medicaid eligible children experience more decay. More in-depth analysis of existing data sets would need to be conducted to verify this assumption.

As a result of the qualitative and quantitative data analysis, several findings are noted:

- The concept of medical/dental should continue to evolve within and beyond CSHN.
- Focus efforts on promoting dental home.
- Broaden scope of services to support the medical home.
- Increase and improve quality improvement and quality assurance activities regarding:
 - Systems
 - Service Coordination (case management)
 - Skills/professional development
- Increase workforce capacity.

4.3.2 STRENGTHS IN QUALITY IMPROVEMENT INITIATIVES

Several innovative quality improvement initiatives are being employed in a variety of organizational health and public health structures. Building Bright Futures, discussed elsewhere, can be considered an initiative to organize early childhood systems to further in the goal of delivering improved family-centered services. The Blueprint/Chronic Care Initiative, also discussed elsewhere, can be considered a way to support health care providers to improve clinical services for their clients.

In an effort to better organize VDH organizational structure and program management, the VDH has begun an initiative designed to quantify and organize the department's programs and their respective goals and objectives. Specifically, program managers are asked to maintain a common website in addition to their own program records with measurable goals and objectives for their projects and programs. Use of logic models for planning is encouraged. The goals are to foster better planning and management of program assets, foster communication between program managers for better collaboration and innovation, enhance the ability to apply for grants or otherwise leverage funds, and to identify overlaps or gaps in VDH services.

The Vermont Child Health Improvement Program (VCHIP) is a population-based child and adolescent health services research and quality improvement program of the University of Vermont. VCHIP's mission is to optimize the health of Vermont's children by initiating and supporting measurement-based efforts to enhance private and public child health practice. VCHIP supports clinicians in their efforts to improve care by providing the tested tools and techniques of quality improvement. VCHIP provides guidance to clinicians throughout the quality improvement (QI) process which includes such strategies as advice from local and

national experts, chart abstractions and review of content for current practices and discussion about best practice, and networking to learn about improvements in other practices. Over the years, several key collaborations with the VDH have resulted in significant advances on community-based pediatric and family health care, such as the development of the pediatric periodicity schedule, training for practices about the immunization registry, and promotion of medical home concepts and practice.

4.3.3 CHILDREN WITH SPECIAL HEALTH CARE NEEDS

Community Capacity Building Efforts: As parents in the focus groups pointed out, their perceived level of quality and accessibility of community-based necessary medical services is uneven from region to region. Since the last needs assessment, CSHN has expanded its role in helping community providers to improve their capacity to serve CSHCN.

- *Nutrition:* Our premier model, CSHN has a fulltime pediatric nutritionist (through a grant to UVM) who identifies, recruits, and trains community nutritionists in practice, through workshops and conference on the nutritional care of CSHCN. Nutritionists receive stipends for attending trainings, and once trained, receive directed referrals from CSHN programs of enrolled children in need of nutrition services. The CSHN nutritionist supervises the evaluations, treatment plans, and interventions. CSHN reimburses the nutritionists and assists with the purchase of special formulas and foods when needed.
- *Physical, Occupational and Speech Therapy.* More recently, CSHN has hired a fulltime pediatric physical therapist (again through a grant to UVM) to develop a similar method for improving the capacity of therapists in communities. He oversees the CSHN prior-authorizations/prescriptions for PT, OT, and speech, especially when CSHN and/or Part C is a payer. He advocates with Medicaid and other payers for appropriate coverage. He is centrally involved in policy development, criteria for services and credentialing.
- *Medical Home.* Vermont has brought MCHB funding to a project to provide technical assistance to all willing Vermont pediatricians to adopt strategies to improve the medical home-ness of their practices. The project recently concluded (March 2005) focused on: identifying CSHCN within their practices so that special methods could be applied to their care; utilizing care plans and other care coordination tools for CSHCN; and partnering with families as advisors to practice methods. Currently, Vermont CSHN and AAP participate in the NICHQ Medical Home Learning Collaborative II. A particular focus (see Section 3, Medical Homes, above) is the advocacy for appropriate reimbursement for care coordination emanating from the Medical Home, reimbursement which will, in turn, support additional staff time for such activities. But perhaps most importantly for Title V/CSHN is the infusion of the medical home philosophy into a set of programs which traditionally (since 1935) has built systems around *specialty care*.
- *Community teams:* Since MCHB's Project BRIDGE in the mid 1980's, Vermont's Child Development Clinic has included community team meetings as part of its itinerant visits to certain communities; the Newport Early Action Team (NEAT) began with Project BRIDGE, and CDC was invited to join the teaming. In Franklin County, the Joshua Project is a community-grown effort of CSHCN families to define their needs and advocate with agencies to meet them. One of the results of their advocacy has been the

CSHN hiring of a medical social worker who is fully collaborative with the multi-pediatrician practice, the Part C team, and CSHN programs in the region. A similar model is supported in Middlebury, VT.

Statewide System Building

The AHS reorganization and its goals have been described amply elsewhere. The imminent challenge is to preserve, where appropriate, the special expertise and focus CSHCN and families deserve, while making access—to all programs and supports—more transparent, to the widest range of families and family needs. OB-Net and Building Bright Futures have been described elsewhere. Our particular concern is the improvement of care coordination supports that meet needs as identified by families, including specialized health needs. For example, a new AHS consumer website, 2-1-1, invites families to explore what services might be available to them, but no information is available without entering family size and income information—important if families have needs for income-based services, but a barrier to access for information about medical and EI services that have no income criteria. It is important the CSHN professionals and families be at the planning tables.

SECTION 5: SELECTION OF STATE PRIORITY NEEDS

The strengths and needs assessment process resulted in the selection of ten priority goals for focusing Title V MCH public health planning for the next five year cycle. For this process, Vermont Title V used input from a wide variety of sources. The traditional quantitative data sources used have grown in their scope and sophistication during the past five years, some in part from the SSDI funded projects, and also due to the availability of several new data sources and electronic systems for analysis. Also, new or updated qualitative data from surveys is now available – such as PRAMS, YRBS, National Survey of Children’s Health, ABRFS, etc. A close relationship with the VDH Office of Research and Statistics enables the latest data information to be shared with MCH planners and program staff.

The MCH staff at VDH (especially in the divisions of Community Public Health and Health Improvement which includes CSHCN) routinely work with a variety of partners – those within VDH for MCH public/community health issues include Mental Health, Environmental Unit, Emergency Medical Services and Office of Alcohol and Drug Abuse. Likewise, VDH collaborates with other departments and divisions of AHS (for example, early child hood, child care, social services, and education) These partners are a wealth of information and resources for collaborative planning on issues covering the broad spectrum of health and social determinants of families well-being. The new AHS reorganization allows for closer connections with important partners in areas such as early childhood, social services, and mental health.

VDH routinely collaborates with its various partners on health and public health issues involving the MCH population. However, for the SNA, a more targeted approach was created to formally receive input about the strengths and needs of the MCH population. A formal querying of the twelve MCH Coalition was conducted to get community based information from local leaders. Also, the Act 53 legislated hospital service area community assessments were reviewed for local perceptions on MCH health and service delivery issues. Finally, a formal interview session was held with each of seventeen key MCH informants who represent a variety of state and local organizations that deal with the many facets of maternal and child health.

This information gathering and analysis process was carried out under the vision of a Vermont Maternal and Child Health Strengths and Needs Assessment – not *just* a population-based needs assessment. Vermont was interested in attempting to apply recent and historical “assets” research to the process of a population health assessment. Assets literature has described methods of describing strengths within an individual, a family, or a community as a key approach for promoting strengths and empowerment. The persons are considered in control of their own health or community and traditional service providers should look to methods of empowering those who are served, instead of “fixing their problems.” Emphasis is on the social connectedness within a group that creates “community” and can be used to build on common strengths. Vermont felt the challenge to apply these concepts of assets to the state MCH population or certain sub-populations when conducting the Title V needs assessment. The resulting document reflects this approach, but must be considered only a beginning for guiding public health theory and action within a strengths promotion context for the next five years.

Vermont has worked closely with its New England neighbors over the past year on the concept of assessment of the strengths and needs of the MCH population. Vermont also has felt the strong support of MCHB and AMCHP in trying this new approach. Also offering consultation has been the UCLA Center for Healthier Children, Families, and Communities. The discussions have been fascinating and innovative ideas have been created for directing public health planning and programming towards the thinking of empowerment and population resiliency, instead of the traditional planning for population needs or reduction in risk taking behavior. In February, 2005, Vermont and Maine, with assistance from the UCLA Center, presented the Region 1 work at AMCHP's annual conference. Much more work needs to be done over the next year on all aspects of this challenge, from tasks as specific as the wording of the performance measure to the promotion of assets in VDH program operations. This process will be facilitated as many planning processes in Vermont have already pioneered this concept (such as the AHS Outcomes Planning report) and community based initiatives in areas of tobacco cessation, community nutrition and exercise, and breastfeeding programs. Vermont and Region 1 will continue for the next year on the themes of asset promotion within a public health context with local assistance from Vermont experts and national consultation from the UCLA Center. Specific tasks that are before Region 1 are the follow up between Maine and Vermont on choosing a common youth asset indicator (from the YRBS) and evaluating if other Region 1 states want to add a similar indicator. Also, all of Region 1 will be working with the UCLA center to choose a common early childhood indicator (Appendix D).

Thus, the following themes have been elicited from the information gathering process- this is a beginning list but certainly not fully specific or comprehensive to be considered complete! Although this report is intended to be an assessment and not an action plan, these themes have been used to guide the creation of the Ten Priority Goals and the ten specific state performance measures for the Title V FFY application. These goals are intended to be specific in order to guide the unique public health MCH planning and programs, and also broad in scope so as to allow a framework for collaborative efforts with our state and community partners in other disciplines such as education and social work.

Vermont's grand challenges for Maternal and Child Health:

- Further understand the nature of perinatal depression and mobilize clinical and community services to support women and their families in prevention, detection, and early intervention.
- Support delivery of comprehensive reproductive health services and sexuality education for both men and women, along with education about healthy relationships.
- Further understand the issues of stress after the birth of an infant and how health and social systems can support families' strengths and assist with their specific needs in this time of change and adjustment.
- Strengthen health and education systems that serve teens and promote awareness of assets philosophy with providers who serve teen and their families.
- Further understand the scope of addictions (alcohol, tobacco, and other substances) in women and pregnant women to determine the best practices for prevention and intervention. Devise support strategies for best support prevention and intervention.
- Reduce the prevalence of morbidity and mortality due to child injuries, especially those from motor vehicle use, all-terrain vehicle use, poisonings, and suicide.

- Further analyze the issues around teen occupational injuries, especially those that are farm-related.
- Continue support for the extensive statewide planning around the issues of overweight and obesity on women, pregnant women, and children. Strengthen clinical care systems for preventive care in addition to prescribed interventions.
- Enhance systems' support of fathers' role in child rearing by education of providers and supporting fathers in their role within the families.
- Support expansion of programs for both clinical providers and the public for education around issues of sexual and domestic violence and support intervention programs that are community based.
- Increase service providers and community and inpatient facilities for children and families to treat mental and behavioral health needs.
- Enhance collaborations between early childhood services and health and public health
- Support systems to reduce exposure of children and pregnant women to environmental hazards and enhance systems with partners to reduce these risks in Vermont's communities.
- Strengthen systems of women's health preventative services, in order to promote general health and also preconceptual health.
- Strengthen system of community education and health care provider supports for women who breastfeed and their families.
- Enhance programs to educate health care providers and community groups about best practices in providing culturally competent services.
- Expand and strengthen efforts to improve the quality of management and services to Vermonters through such major initiatives as VDH-VCHIP collaboration, new approaches to organization of state services, comprehensive systems of care for early childhood, Asset Management of VDH programs, and the Blueprint/Chronic Care Initiative, and development of the medical and dental home (for all children, including CSHCN)

In reflecting on the grand challenges for MCH in Vermont, one must recognize that by many valid measures, Vermont's MCH population and system capacity is doing very well. Over the past five years, and building from previous work, systems that are responsive to the needs of MCH have been created, such as Medicaid eligibility at 300% FPL, the majority of physicians and other health care providers accepting Medicaid insurance, immunization registry, community support networks to assist with supporting the strengths and needs of families, enhanced surveillance capacity – these are only a few examples of the tremendous assets found in the MCH system of care in Vermont. The recent AHS reorganization can be viewed as an opportunity to foster communications among services and workers from disciplines of education, health, social work, and others. In addition, the VDH Blueprint is a solid plan for improving the nature and quality of health care services. Medical home initiatives, such as the CSHCN medical home program and the project between WIC and VCHIP are making great strides in developing Vermont-specific models for services and guiding the way for improvement of medical and dental home services for all children.

The Advisory Committee chose Ten Priority Goals and articulated ten related Performance Measures (Appendix E). In addition, the Committee agreed to meet periodically throughout the 2005-2006 year to further refine the wording of the State Performance Measures for inclusion in the Title V Application for FY07. The other role for the ongoing activities of the Advisory Committee will be to provide a forum for communication among the member organizations to help in coordinating state and local activities that will effect the achieving of the Ten Priority Goals.

The Advisory Committee process for choosing the Ten Priority Goals involved a qualitative iterative discussion using ten agreed-upon guidelines (refer to Section 1.1.) The Ten Outcomes that guide the planning and activities of the state Agency of Human Services were also instrumental to the committee when choosing the Ten Priority Goals and related performance measures. The measures are intentionally worded to reflect a combination of both the traditional approach of program evaluation or “deficit” wording and also the newer approach of strengths-based wording. Measures were chosen to reflect the existing work of VDH programs or to begin measurement of initiatives that are in the beginning stages of implementation. It was desirable to include measures that reflected the broad scope of MCH public health – hence the broad array of VDH programs such as environmental, CSHCN, exercise and the built community, etc. Measures also reflect our newer partners in MCH, such as mental health and early childhood. Some measures are population based and some are specific for program data or Medicaid data. Also, measures were chosen to reflect a new aspect of MCH programming, and not to reiterate what might already be monitored via Title V-required national performance measures or outcome data. Finally, the measures reflect our collaborative working relationships within New England: our common measure with Maine from the YRBS and our pending measure for all of Region 1 for early education. The Ten Priority Goals and State Performance Measures are as follows:

1. Pregnant women and young children thrive:
 - > Percent of women reporting tobacco smoking during the last trimester of pregnancy

2. Children live in stable, supported families
 - > Region 1 early Ed indicator. Vermont has committed to create an asset based indicator that describes an element of early childhood and health status. This will be a common indicator with MCHB Region 1 and determined with consultation with UCLA Center for Healthier Children, Families, and Communities.

3. Youth choose healthy behaviors and will thrive.
 - > The percent of youth in grades 8-12 who have attempted suicide in the last twelve months

4. Women lead healthy and productive lives.
 - > Prevalence of women ages 18-44 whose BMI is greater than or equal to 30.

5. Youth successfully transition to adulthood.
 - > The percent of youth who feel like they matter to people (YRBS.) Common indicator with the state of Maine, possibly to be adopted by other Region 1 states.

6. Communities provide safety and support for families.
 - > The percent of Vermont towns with at least two formalized public recreational services for residents.

7. All children, including CSHN, receive continuous and comprehensive health care within a medical home.
 - > The percent of providers of care to CSHN who perform care coordination as evidenced on the Medicaid claims codes.

8. All children receive continuous and comprehensive oral health care within dental home.
 - > Percent of children using Medicaid who use dental services in one year time period.

9. Children and families are emotionally happy.
 - > Percent of children served jointly by mental health, DCF, and special education (Service Integration Ratio – presently being developed by Mental Health)

10. Children and families live in healthy environments.
 - > Percent of one-year olds tested for lead poisoning.

Many aspects of the described programs (and also reflected in the priority goals) are founded on the theme of supporting the assets of the individual, communities, and populations – those groups who can be considered recipients of a service. However, the capacity assessment can also be viewed in the light of understanding the strengths and deficits in the specific program or systems under review. Several initiatives in this report have been described – initiatives intended to build on the strengths of exiting clinical systems or programs and also to enhance their efficacy. For example, the Vermont Department of Health’s Blueprint gives tools to individual clinicians and practices to develop assets within their own offices systems and procedures to improve services. The VDH’s Blueprint also serves to empower “patients” by encouraging client self-management in personal health care. Also, a key goal of the AHS reorganization is to streamline services and thus is enabling AHS districts to be more self-governing and less centrally administered. Thus, this framework of asset promotion can assist individuals and families and communities - also the philosophy can be expanded into supporting the strengths of existing public health systems and encourage research and use of best practices that support the assets of the community or population in order to achieve the vision of a healthy population.

APPENDIX A
KEY INFORMANT INTERVIEW GUIDE
& SUMMARY

MCH STRENGTHS & NEEDS ASSESSMENT KEY INFORMANT INTERVIEW QUESTIONS

Title V

Every five years, the Title V Maternal and Child Health program administered by the Vermont Department of Health, Division of Health Improvement, is required to conduct a state wide assessment of the maternal and child health population strengths and needs. Nationally, Title V provides a foundation and structure for ensuring the health of all mothers and children, including those with special health care needs. Services supported by Title V's national administration and funding or by collaborations with other MCH organizations include:

- Direct services (multidisciplinary clinic-based services to children with special health needs of all ages; well-child visits and immunizations for children without access to preventive health care; public health nurse home visits to pregnant women and infants to one year);
- Enabling services (outreach, information and referral, and administrative case management for children enrolled in Medicaid; nursing, social work care coordination, and respite care for CSHN; Medicaid prior-authorization of certain medical and dental services);
- Population based services (school-based fluoridation program; oral health education; newborn screening, SIDS program);
- Infrastructure building services (collaboration with Medicaid and managed care; primary care medical home support; interagency and community-based health care systems planning; cultural competency training).

In addition, the Title V supported program of Children with Special Health Care Needs (CSHCN) is the administrative home for Vermont's Part C Early Intervention system.

Questions

1. How would you describe the state of MCH in Vermont presently? [Where are we now?]
2. What are your goals for MCH in Vermont? [Where do we want to be?]
3. Do we continue on the same course that we are now on to reach those goals? What could we do differently? [How do we get there?]
4. What are the grand challenges for MCH in Vermont? [What are the problems that need to be solved?]
5. What is our ability to meet these challenges? [What is the state's capacity to address these issues?]
6. Describe the MCH activities of which you are the proudest? [What are the strengths of the MCH system in Vermont]

KEY INFORMANT SUMMARY

A total of seventeen key informant interviews were conducted with a diverse group of stakeholders including family service providers, advocates, policy makers, quality improvement and systems change organizations, obstetricians and pediatricians. Stakeholders were identified by Vermont Department of Health staff and asked to participate through a formal letter of request. The interview guide was developed based on a review of assessment tools from other state MCH programs including Maine and Washington. Ultimately, the assessment tool was comprised of six broad questions requiring up to 60 minutes of discussion to complete (Appendix A). The goal of the key informant interviews was to incorporate a range of perspectives in the strengths and needs assessment in order to better understand the:

- State of maternal and child health (MCH) in Vermont presently;
- Stakeholders' goals for MCH in Vermont;
- Strategies for meeting these goals;
- Grand challenges for MCH in Vermont;
- Ability of the state to meet these challenges; and,
- Strengths of the MCH system in Vermont.

State of MCH

The majority of key informants stated that the current state of MCH in Vermont presently is strong and its strength attributed to a collaborative, diverse and committed MCH system and community. They described this community as a coalition that works “beautifully”, garnering resources to support new initiatives and showing interest in these initiatives. Its success, many observed, is due to a strong public and private partnership as well as its ability to span a broad spectrum of service providers, policy makers, health care practitioners and organizations that work to improve systems. One key informant discussed the work of the Northern New England Perinatal Quality Improvement Network, as an example of a systems change initiative involving community hospitals.

Northern New England Perinatal Quality Improvement Network (NNEPQIN) is a loosely affiliated network of community hospitals in Vermont and New Hampshire that was created around the common use of OBNet, a web-based delivery registry that produces patient reports (such as admission history, delivery note, operative note, pediatric summary, nursing note, discharge summary, and connection to birth certificate). Under NNEPQIN, hospitals came together to develop their own set of policy related recommendations which galvanized a core group to work in the area of obstetrics. A key participant in this group is the Vermont Regional Perinatal Network, an organization working out of the University of Vermont (partially funded by Title V) that supports quality obstetrical and neonatal health care services by providing a comprehensive system of educational programs for perinatal health care professionals. Preventive care in new born nurseries is one example of the group's work.

NNEPQIN and VRPN illustrate the impact of a targeted intervention (?) within the MCH community working to improve systems. Another, and more global yet equally noteworthy, example of primary prevention that many key informants discussed is Vermont's safety net system including Medicaid, WIC, Healthy Babies, Kids and Families, and other health and public health programs. Key informants noted that all pediatricians in the state accept Medicaid and that 95 percent of children in Vermont are covered by health insurance.

Additional examples provided include the decrease in Vermont's teen pregnancy rates over the past decade; 87 percent of women are receiving prenatal care in the first trimester; high immunization rates; birth outcomes; and an increasing number of youth reporting asset indicators on the Youth Risk Behavior Survey, all of which can be partially attributed to a strong state system and safety net, and as one key informant noted Vermont's good early childhood care system, preschools, schools and community should also be credited. Several key informants addressed these institutions in the context of the work of Building Bright Futures.

"Building Bright Futures: Vermont's Alliance for Children and Families is an innovative public private partnership comprised of private sector providers, families, business leaders, community members and state government decision makers designed to create a unified, sustainable system of early care, health and education for young children and their families to ensure that all Vermont children will be healthy and successful."²² The work of Building Bright Futures, one key informant said has engaged, once disparate, state agencies including the Department of Health and Department of Children and Families.

Although key informants praised the state on its current status, all recognized that there is work that remains in a time when significant political and social threats may be undermining the progress that has been made. The following topic areas are those that key informants perceived as compromising the state of MCH, and its strong foothold, in Vermont currently:

Coordination of Services. In the context of discussing the numerous service resources available to Vermont families, several key informants identified the need to improve coordination of services. Several spoke of the variation in service level, specifically in advocacy, that impacts the types of services families receive and the coordination. Another key informant stated, "The problems are that the system doesn't talk to itself."

Social & Economic Issues. Transportation, housing, the ability to earn a livable income were all identified as significant issues. One key informant commented that Vermont has a "real housing issue that truly affects the health of children... Living in unsafe housing, moving a lot, living far away from where parents work puts a lot of stress on the family." The informant went on to describe parents who work 2-3 jobs in order to "make ends meet". The informant concluded by reiterating the need to ensure that there is more availability of safe affordable housing, and commented, "Why don't we have home health nursing [model] for families [to address these issues]?" Many organizations are confronted by the social and economic issues of families on a daily basis, but few have the resources to address the increasing need.

²² Fact Sheet. Health Committee, Building Bright Futures (BBF): Vermont's Alliance for Children. February, 2005

Substance use and treatment issues. The cascading affect of substance abuse and the lack of treatment providers increasingly test the current state of MCH in Vermont. Many key informants commented on the workforce issue: the lack of providers/places to refer individuals. While another informant observed increases in foster placement, the incarcerated female population, and in Termination of Parental Rights (TPR) all of which was attributed to the increase of substance abuse in the state. The key informant commented that although substance abuse is recognized as a chronic disease, the state's response to the issue lacks tolerance for the recovery process which is not dissimilar to the recovery process (in terms of time) of most chronic diseases. The individual concluded the interview by identifying the need to more closely examine the treatment of substance abuse as a chronic ailment in addition to gender-responsive treatment plans, treatment plans responsive to special needs populations, as well as increasing access to pharmacological treatment.

Access to mental health services for children. All key informants discussed the issue of mental health and mental health treatment, identifying it as the new morbidity. Many acknowledged the stigma that is still attached to mental health inhibits access to services. However, the lack of mental health practitioners, specifically for children, poses the greatest threat.

Access to dental care. Another workforce issue in terms of access was dental care. Several key informants discussed the lack of availability of dentists for children and that this issue is extending into the population of pregnant women. One key informant described the issue of dental health in terms of a "two tiered system", commenting that contrary to pediatricians, dentists are not necessarily interested in taking Medicaid and cap the number of Medicaid patients that they see. The key informant stated that approximately 50 percent children on Medicaid have seen a dentist within the past year.

The System. Many key informants acknowledged the "system" as both which makes the current state of MCH in Vermont strong as well as the "work" that needs to be done to improve MCH. One key informant said, "We still are doing better than most states and we have complex systems that make things challenging." Another key informant described the system as "more fragmented than ever—there are always parts that need to be supported". The informant added that the fragmentation can be avoided through improved planning and policy decision making that engages a diverse group of stakeholders to increase the likelihood that the implications of such decisions are more carefully thought out. The increase in Medicaid premiums and aspects of the Agency's reorganizations were examples provided to illustrate what some perceived as insufficient and isolated planning.

Interdepartmental collaborative work, communication and planning, however, are examples several key informants discussed as a means of overcoming fragmentation and assuring a coordinated effort in the midst of government reorganization. Key informants spoke of monthly meetings with other departments to discuss a wide spectrum of public health issues where policy can better support practice. Whereas others expressed concern about losing a public health focus in programs that were moved out of the Department of Health to other departments with new leadership whose focus historically has not been public health.

Another key informant interview was the most illustrative of the complexity of a system whose strength may come with compromises. This key informant described the system as a system in need of emergency services given the need in regions where access is limited and general

information about available services is not always well-understood. The individual spoke at length of the strength of the system lying in the years before a child enters school. Subsequent years, for children 5 -18 years of age, were described as challenging. “These years are inconsistent, challenging and require more resources. For families in the rural areas there is a lack of support. Issue of isolation is tremendous. The people with the greatest needs are not in the areas where it is easy to access resources and support. Family preservation is the first thing to go when a system is under pressure when it should be the last.”

Goals for MCH in Vermont

As for the goals for MCH in Vermont, many key informants identified securing the progress that has been made: continue supporting and promoting the public private partnership that one key informant described as having become a vehicle for discussion about the issues, prioritization, strategizing, and exploring funding to address these issues. One example provided was assuring that one of Vermont’s most successful quality improvement programs, Vermont Child Health Improvement Project (VCHIP), continues to thrive and be a priority.

In addition to securing Vermont’s progress, there were numerous other goals stakeholders identified related to workforce issues; access to care; reducing infant mortality; and, better nutrition. The following are the specific goals mentioned during the interviews:

- *Increase the number of pediatric therapists (physical and speech) and nurses.* Workforce issues were raised by the majority of key informants, and what many described as both a financial and human resource issue.
- *Work to ensure continuity of care.* The key informant who identified this goal spoke of the gap in services at certain ages, for example children between the ages of 3 and 5 years are not eligible for some programs raising the issue of continuity of care.
- *Ensuring a medical home for children.*
- *Improved service delivery system.* Several key informants spoke of the need for efficiency (coordination) in planning activities that inform how services are delivered. Others spoke of increased knowledge of available services; improved accessibility; better case management for children with high needs (in-home care); more qualified care-givers; and, creating linkages to provide comprehensive continuity of care needs to children from birth through the complete aging process.
- *Increase professional development opportunities.* Again, the example of case management was raised by several key informants. Individuals spoke of higher standards for those working with families, not an entry level position. One person commented in the context of prepared professionals, “I worry that there is not enough medical assessment by those managing the cases. Who goes to bat for the child and family?”

- *Universal access to care.* This goal was identified by several key informants who spoke in global terms as well as specific terms to include coverage for prenatal and post partum care and access to specialty care. One key informant observed that health plans are not always responsive to the need of specialty care and its lack of availability in Vermont. The issue of health plans and the lack of responsiveness also included the issue of dual insurance (private and Medicaid) especially around adaptive technology (wheelchairs) and adequate coverage. Another access issue identified was how medical and educational are discerned among health plans and adequate coverage.
- *Work to establish a pediatric rehabilitation center.* The individual who identified this goal discussed the reality that many Vermont families face when researching pediatric rehabilitation centers—there are none in the state which places added stress on families who are forced to commute out of state.
- *Assure quality, family centered practices.* Many discussed the movement to more family centered practice which requires training of professionals on the approach. Others discussed the need for a continuum of care for children, inclusive of the family.
- *Develop a gender-responsive system.* One individual identified the need to connect the systems of care so that there is a continuum of care and not a revolving door specifically in regard to the female incarcerated population.
- *Work to assure the inclusion of children in the Chronic Care Model.* One key informant observed the lack of discussion of children in the Chronic Care Model.
- *Reduce obesity related complications.* Many identified the issue of good nutrition for families and obesity.
- *Increase efforts to address substance abuse and smoking.* Several key informants discussed the issue of substance abuse and the need for more treatment providers.
- *Reduce unintended injury.* For children, unintentional injuries is the number one cause of emergency room visits.
- *Provide education and training to foster parents on sexuality.* Given foster parents close proximity to a high risk population, one key informant identified the need to “leverage” this vantage point.
- *Address the needs of Vermont’s growing diverse populations.*
- *To offer similar information that Vermont Regional Perinatal Quality Improvement Project provides to participating hospitals.* The key informant identified this as one strategy to impact infant mortality by more closely examining neonatal mortality through more focused case review of neonatal deaths (peer protected case reviews).

- *Improve access to mental and dental health.* Although this goal was identified by several key informants, one individual spoke of the need to challenge policy making decisions that may have negative impact on populations using Medicaid. The informant commented, “The public part has to take care of the private part—that is the nature of a public private partnership. Physicians are strapped and the impending policy regarding Medicaid is going to cause more stress on providers.”
- *An MCH system that is more closely aligned with early childhood system.* The key informant who identified this goal discussed the issue of regulatory barriers such as Medicaid regulations which inhibit use or blending of funding and consequently a more closely aligned system. The informant also commented that the agency reorganization has helped to put in motion activities to support this goal, but ended the discussion by saying, “I believe policies if not regulations get in the way of that systematic approach.”
- *Improved advocacy.* One key informant discussed the need for an improved system and recognized advocacy as an effective strategy.
- *Vermont ranks Number 1 in the country and meets 2010 goals in related areas.*
- *Colocation of mental health workers in all pediatric practices.*
- *To improve low-birth weight.*
- *To better identify, diagnose and treat mental health issues.*
- *Increase safety nets between family support and hospital care.*
- *Increase standardized screening and referral services.*
- *Expand the work of VCHIP.*

Strategies For Reaching MCH Goals

Collaboration & Communication. All key informants discussed aspects of improving collaboration to breakdown and/or avoid the silos. This includes better systems of communication and identification of system resources. One example provided was VCHIP and their work in mental health. VCHIP now has on staff a pediatrician and psychiatrist team to work with pediatric practices in diagnosis and treatment of the most basic mental health issues such as anxiety and ADHD.

Implementation & Evaluation. Many recognized the state’s strength in planning, but expressed interest in more emphasis on implementation and evaluation of programs, activities and initiatives. One individual commented, “[We need to] hold ourselves to standards of accountability—what we have tended to do is, when there is a problem, create a program. We haven’t invested money in really evaluating those services to understand how they are impacting families and respond appropriately to what findings are saying.

Quality Improvement & Quality Assurance. Use of data was raised again yet in terms of a quality improvement and assurance activity. The example one key informant provided was the impact emergency services for newborns at community hospitals, working with obstetricians and anesthesiologists regarding possible cases. The individual commented that use of data also speaks to the issue of access to and coordination of data between the health department and other agencies and organizations.

Integration of community development and health behavior change. The Blue Print was used as an example to illustrate the work that many stakeholders are involved in to support systems and communities in supporting behavior change.

VT Alliance for Children: Building Bright Futures. The work of Building Bright Futures was one example a key informant provided of “staying on the current course”. The individual described this initiative as “comprehensive planning” working to ensure that children and families have access to care.

Work Force. In addition to recruitment and retention of professionals in nursing, mental health, substance abuse and pediatric therapy, one key informant discussed the need to examine the future leadership at the Department of Health.

Outreach. Improved strategies for reaching children at home, school and childcare centers by engaging more providers.

Education. One key informant identified the need for education of policy makers and administrators who make decisions.

Continue current efforts. Many commented on the need to continue with current efforts including preserving work towards establishing medical homes for families; training care givers; and, preserving Medicaid.

Grand Challenges

The grand challenges identified by key informants parallel the goals and are reflected in the following areas:

- Assuring access to care including mental health (screening, prevention and treatment), substance abuse and dental health
- Assuring access to services (the issues of a rural state and physical isolation)
- Securing Medicaid
- Coordination of services and improving systems of communication
- Evaluation
- Use and integration of data into planning, implementation and evaluation.
- Using evidenced-based practice.
- Nutrition and obesity
- Efficient use of resources
- Dissemination of information
- Increased access to adaptive recreational equipment

- Workforce (nurses, dentists, pediatric therapists) as well as ensuring professional development/training opportunities for current workforce.
- Limited facilities for children with special needs and long-term care for this population
- Access to safe affordable housing
- Employment (livable wages, full-time employment opportunities)
- Developing adolescent focused programs
- Recognizing social and economic indicators as high risk indicators and integrating these into program planning, implementation and surveillance activities.
- Vermont's changing population: One key informant discussed the need to consider the arrival period of refugees as "high-risk", not necessarily for health outcomes, but for access to services which ultimately may compromise health status.
- Surveillance on poverty related influences on health.
- Valuing prevention and putting resources toward prevention.
- Strengthening connection to medical homes for all publicly funded programs including childcare and early education.

State's Capacity

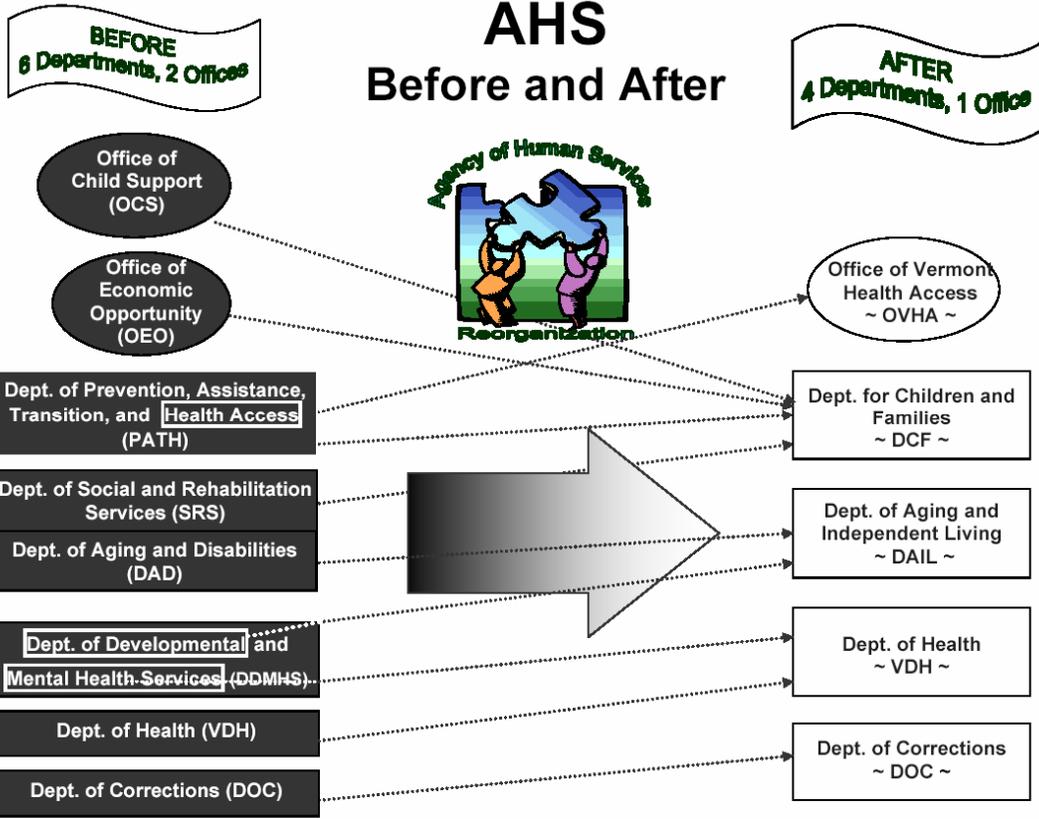
This question elicited the broadest spectrum of answers, ranging from key informants stating that the state's capacity is limited due to shrinking resources, to the state having the capacity, however, needing to be "smarter" in its approach. Many spoke positively of the statewide and regional collaborations and the public/private partnership. Others discussed strategies to strengthen the state's capacity such as creating funding opportunities that recognize the type of work that is being done given the complexity of systems' change and dynamics at play.

The issue of identifying and responding to new challenges in a timely and appropriate manner was also identified as a means of strengthening the state's capacity which some identified as an issue of "will" versus capacity. One key informant commented, "There is a tremendous system and cognitive gap, an information gap, a societal will gap—feeling that they can't do anything about it. Also a resource gap." On a similar note, another key informant commented, "Our ability is being significantly taxed. I don't know if we have the ability to meet these challenges if we don't think about the challenges differently: look at how things are funding, how we administer programs. Our ability to meet the challenges has to do with our willingness to change the way we do business."

Yet still others questioned the state's capacity based on the myriad of social and economic issues including poverty, housing, health and education. In order to strengthen the state's capacity, the informant identified the need to recognize that the issues are inter-related and need to be addressed as such.

APPENDIX B
AGENCY OF HUMAN SERVICE
REORGANIZATION CHART

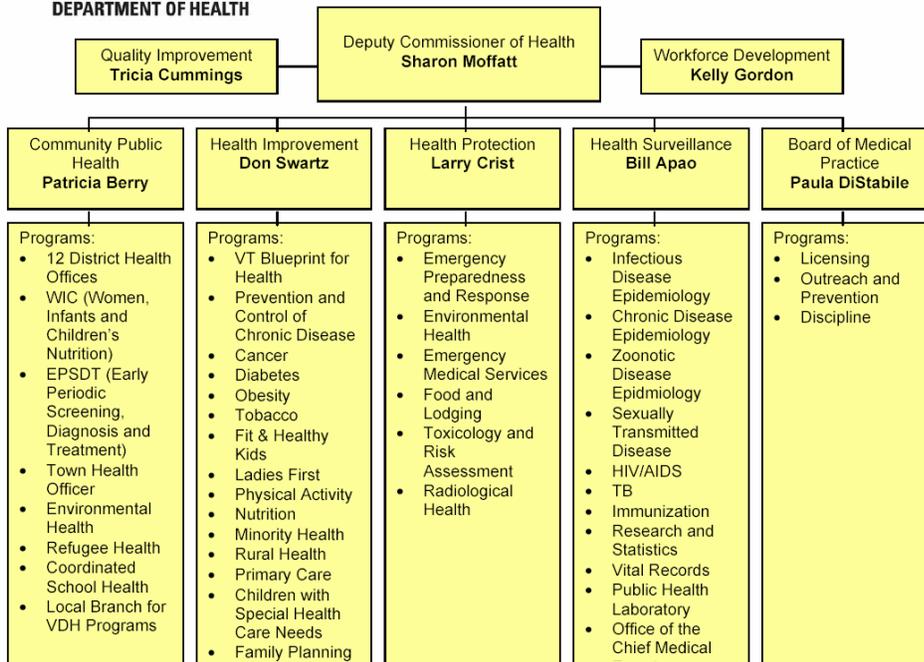
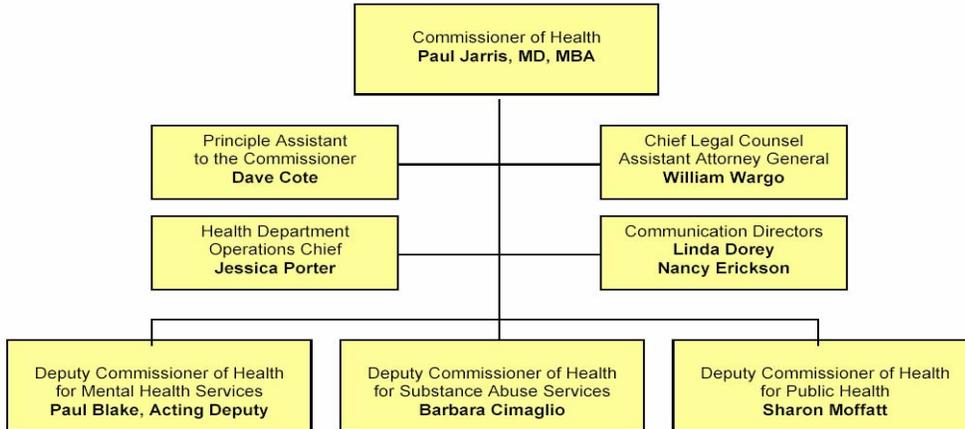
AHS Before and After

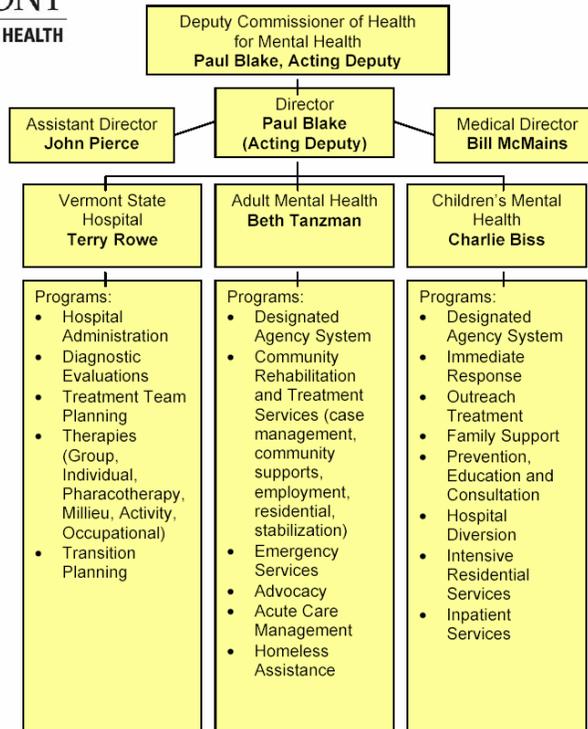
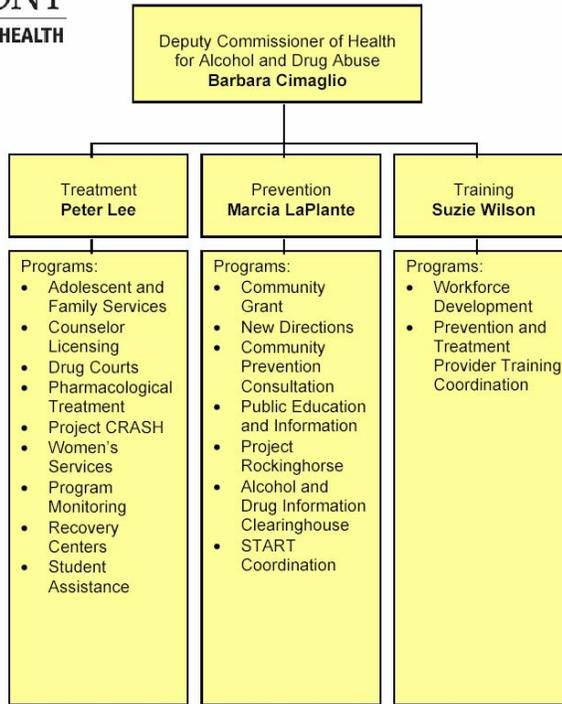


(Effective July 1, 2004)

APPENDIX C
VERMONT DEPARTMENT OF HEALTH
ORGANIZATIONAL CHART

Commissioner's Office





APPENDIX D
UCLA CHILDHOOD INDICATORS

Population Strengths and Needs in Title V MCHB Region 1
Authored by Neil Halfon and Thomas Rice, June, 2005
UCLA Center for Healthier Children, Families, and Communities

New research in public health promotion is beginning to document how contributing to a population's strengths and social capital can promote positive outcomes and avoid or mitigate negative ones.¹ In addition, asset-based community development activities throughout the country have also shown how empowerment, resiliency, and the ability of communities to build on their asset base can contribute to achieving desired changes.

The asset-based measurement approach can complement more traditional measures of needs, morbidity, and remediation by highlighting tools that capacity-building strategies can use to promote a population's strengths and minimize deficits. For instance, family resource centers (FRCs) can be effective multi-service delivery platforms with high degrees of family participation, trust and satisfaction. Measuring the prevalence of FRCs, identifying common elements contained within an FRC, and gleaned best practices from the child and family outcomes related to use of an FRC in communities can provide incentives and strategies to develop FRCs in new and existing service delivery models.

The state of Vermont worked with 5 other states in Region I and the National Center for Infant and Early Childhood Health Policy at the UCLA Center for Healthier Children, Families and Communities to develop a asset indicator framework that embraces an ecologic model of factors that influence child health and development. The framework intends to assign indicators at the state policy level, the community level, the service provider level, as well as the parent/family and individual/child levels. This framework will help identify improvements in infrastructure development by pointing out how assets at one level (e.g. individual child, or family) interact with and reflect the outcomes of strategies at another level (e.g. provider or policy).

The measurement framework also allows for study of asset use. For instance, it will consider a prevalence measure (i.e., to what extent does the asset exist?), a performance measure (i.e., how well is the asset being utilized?), and a measure that examines how well an asset is integrated into a portfolio of other strengths, resiliency, programs, and policies.

The Title V block grant and needs and strengths assessments are important means of conveying federal and state evidence-based priorities. The state Title V agencies in federal Region I have agreed to develop indicators that measure the collective assets of their early childhood health systems. The Region has chosen to focus on their collective assets regarding child care health consultants (CCHC). CCHC's contribute to the general health and safety of child care sites, and the health and development of children in multiple domains—e.g., physical growth and development, socio-emotional development, cognitive development, etc. The State of Vermont will work with Title V agencies throughout the region to examine what measures can be developed to capture CCHC's contributions to health and development; continuously improve their ability to support children, families, and providers; and their role in the early childhood service system.

¹ Murphey, D., Lamonda, K., Carney, J., Duncan, P. Relationships of a brief measure of youth assets to health-promoting and risk behaviors. Journal of Adolescent Health. 2004, 34:184-191.

APPENDIX E: TEN PRIORITY GOALS

Ten Priority Goals
Draft – for Title V Strengths and Needs Assessment – June, 2005
Draft – July 1, 2005

Priority Goal	Related Measures from Title V Application and Annual Report	Overall Related Measures and Data Sources	Suggested State Performance Measure for Title V 2005
1. Pregnant women and young children thrive.	PM#18/HSCI#4-adequate AP care PM#11-Breastfeeding at hospital discharge PM#15-%VLBW PM#17-VLBW born at tertiary centers >OM#1-Infant mortality rate >PM#10-deaths to children <14 years by MVC >OM#6-child death rate >HSCM#1-children hospitalized for asthma >HSIM#3A-child deaths from unintentional injuries >HSIM#3B-child deaths from MVC >HSMI#4A-nonfatal injuries children >HSMI#4B-non fatal injuries to children due to MVC	>% children in food insecure homes >childhood poisonings >PRAMS-insurance during pregnancy >PRAMS-multivitamins before pregnancy > Folic Acid knowledge > Prepregnancy BMI >Prenatal care >% WIC participation > PRAMS-medical problems during pregnancy >PRAMS-bedrest during pregnancy >PRAMS-smoking during pregnancy >PRAMS-alcohol use during pregnancy >PRAMS-emotional stress pregnancy >PRAMS-physical abuse pregnancy >PRAMS-delivery-length of stay, insurance, NICU > PRAMS-ETS pregnancy > PRAMS-Back to Sleep > PRAMS co-sleeping >PRAMS-well baby care > PRAMS-birth control after pregnancy > PRAMS- home/household income >PRAMS-social support during/after pregnancy	Percent of Women reporting smoking during last trimester of pregnancy (PRAMS)
Priority Goal	Related Measures from Title V Application and Annual Report	Overall Related Measures and Data Sources	Suggested State Performance Measure for Title V 2005
		>PRAMS-child care quality	

		<ul style="list-style-type: none"> >PRAMS-safety-smoke alarm, loaded guns, mom seatbelt use >SPM#4 (2000) % caregivers report they place babies on back to sleep (WIC) 	
2. Children live in stable, supported families.		<ul style="list-style-type: none"> > Child support collections > Child abuse/neglect rates > Homeless shelter use > Moves within child substitute care > Fathers participating in parenting groups > Fathers taking paternity leaves > Child poverty > Families-food stamps 	Region 1 Early Ed indicator: Commitment to use a common asset-based indicator with all of Region 1 that describes an element of early childhood and health status. To be determined in 2005.
3. Youth choose healthy behaviors and thrive.	<ul style="list-style-type: none"> > PM16-Teen suicide >OM#6-child death rate >HSIM#3C-youth deaths MVC >HSIM#4C-child nonfatal injuries due to MVC 	<ul style="list-style-type: none"> > YRBS – risk behaviors and asset questions – alcohol, tobacco, drugs > Overweight in teens > Hospital data-suicide attempts >SPM#10 (2000) %Youth overweight/obese 	Percent of Teen who have made a plan about how to attempt suicide. (YRBS)
4. Women lead healthy and productive lives.	<ul style="list-style-type: none"> > HSIM #5AB-rate of Chlamydia in women > PM#8-Teen birth rates 	<ul style="list-style-type: none"> > Overweight/Obesity date for women and weight gain in pregnancy (BRFS) > Pregnancy intendedness -PRAMS > IPV/D Violence -PRAMS > Maternal depression-PRAMS(in future) > Women/Maternal alcohol use > Women in workforce/income > Breast cancer rates > PRAMS-mother oral health > Smoking 	Reduce the percent of women aged 18-44 years whose BMI is greater than or equal to 30. (BRFS)
Priority Goal	Related Measures from Title V Application and Annual Report	Overall Related Measures and Data Sources	Suggested State Performance Measure for Title V 2005
5. Youth successfully transition to adulthood (AHS)	>PM#6-CSHN youth transition to adulthood	<ul style="list-style-type: none"> >% HS seniors - plan to work or college > youth unemployment >repeat births to teens 	Co-indicator with Maine – YRBS: “In my community, I feel like I matter to people”

		<ul style="list-style-type: none"> > % HS seniors who continue education > HS grad rate > runaway/homeless > NS-CSHN > New families at risk > % Special Ed students in regular class settings 	
6. Communities provide safety and support for families.		<ul style="list-style-type: none"> >Victim compensation > Probation population > Livable wage > Home ownership rates > Measure of Walking paths/Rec areas > Measures of number of community-based programs for families (parenting groups, reading programs, 4H, B&G Clubs > School readiness indicator > social justice indicators 	Percent of Vermont towns that have facilities for community members to use for physical activity ie; improved sidewalks, walking trails, schools open to the public, etc. – Data to be obtained from VDH/CRS survey)
7. All children, including CSHN, receive continuous and comprehensive health care within a medical home.	<ul style="list-style-type: none"> > PM 1/Form 6 – children receive NBS > PM 2-6 - SLAITS measures > PM 7-Iz rates > PM12-NB hearing screening > PM13-% children no health insure > PM14-% M'caid with service > HSCI#1-children hospitalized for asthma > HSCI#2-Medicaid infants with 1 periodic screen >HSCI#8-SSI & CSHCN 	<ul style="list-style-type: none"> > 2000 SPM#1 > 2000 SPM#3 > 2000 SPM#8 > Medicaid claims > CSHN med home program > HSCI1-children hospitalized for asthma > Blue Book – number therapeutic child cares 	Number of claims submitted by primary care providers to Medicaid for an annual care plan for CSHCN (Medicaid data from CSHN Med Home project)
Priority Goal	Related Measures from Title V Application and Annual Report	Overall Related Measures and Data Sources	Suggested State Performance Measure for Title V 2005
8. All children receive continuous and comprehensive oral health care within a dental home.	<ul style="list-style-type: none"> >PM 9- third graders with sealants – survey >HSCI7-EPSDT receiving dental services 	<ul style="list-style-type: none"> > Medicaid claims >SPM#2 (2000) % low income that use dental services in one year 	>% low income children who use dental services in one year (Medicaid) (SPM#2 from 2000)
9. Children and families are emotionally healthy.		<ul style="list-style-type: none"> > Parents read to children >Parents eat dinner with children > National Survey – Children’s health 	> Suggested measure to be determined – possibly the Service Integration Ratio – percentage of

		and CSHCN > Institutionalization rates	children served jointly by mental health, DCF, and special education
10. Children and families live in healthy environments.		> Radon kits distributed/% positive > Schools and indoor air quality > Asthma measures > Mercury > ETS and pregnant women	>% one yr olds tested for blood lead levels.

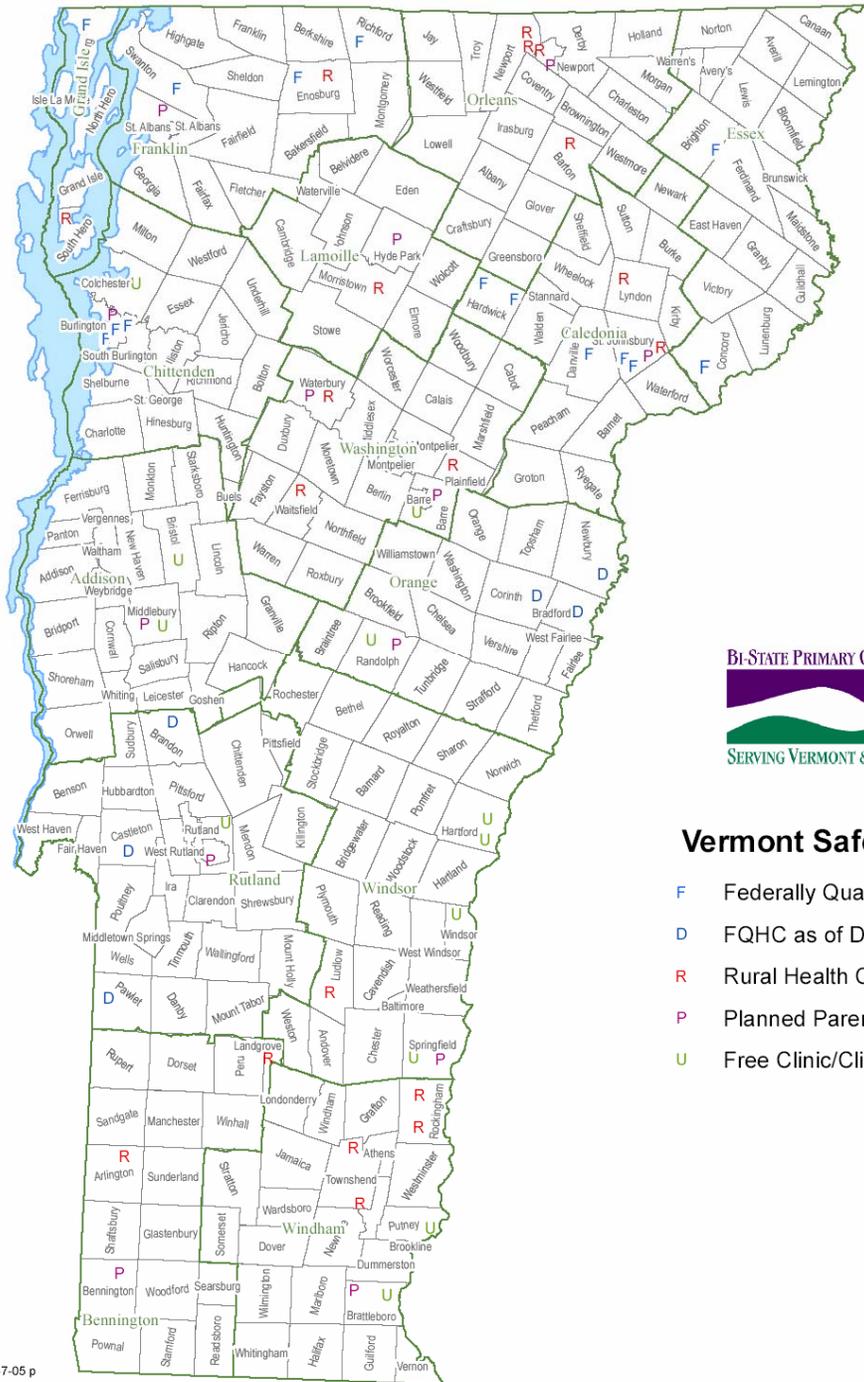
NOTES:

- > Changed “Youth choose healthy behaviors” to “Youth choose healthy behaviors and thrive”
- > One performance measure must be related to youth assets and the same wording as with Maine in the YRBS.
- > One performance measure must be related to early ed population and services and is a common measure with Region 1.
- > Ten Goals are worded generally to reflect overall goals of MCH public health and the goals of collaborations with partners or new initiatives, such as Blueprint, Building Bright Futures, Early Ed, Mental Health. The performance measures are more specific and reflect MCH strategies or activities at VDH.
- > The grant only allows for only one performance measure per goal – however – we can discuss more measures or data analysis in the grant narrative so as to capture a full picture of the population status and organizational response.
- > The ten goals reflect our partners in early ed and other human services. Also, reflect new organization of VDH with inclusion of mental health
- > Data sources: Vital Statistics, PRAMS, National Survey for Child Health and also CSHN (NS-CH)-new data available every four years, Social Well Being, AHS Outcomes, Healthy Vermonters 2010, etc.

skerschner, June 2005, 865-7707

APPENDIX F
VERMONT SAFETY NET PROVIDERS

Vermont Safety Net Providers



6-7-05 p



Vermont Safety Net Providers

- F Federally Qualified Health Center (FQHC)
- D FQHC as of December 2005
- R Rural Health Clinic
- P Planned Parenthood
- U Free Clinic/Clinic for the Uninsured