



## Colorado Title V Maternal and Child Health Program Mid-Course Progress Review - 2011-2015

### Background

In 2010, Colorado's Maternal and Child Health (MCH) program conducted a comprehensive statewide five-year needs assessment in alignment with federal Title V guidelines. Given the state's historical difficulty of quantifying the health impact of MCH interventions, staff was motivated to embrace a different approach to the 2010 needs assessment process to assure that programs, policies and systems building efforts would demonstrate measurable impact within five years. The needs assessment was designed with this focus in mind.

Initially, Colorado re-affirmed the vision statement for MCH - To foster Healthy People, Healthy Families...Thriving Communities. The state's mission statement was shortened to focus on optimizing the health and well-being of the MCH population by employing primary prevention and early intervention public health strategies. The overall goal of the needs assessment process focused on identifying a set of specific priorities that could be acted upon at some depth so that results, even preliminary ones, would be evident within five years. Strategies employed to achieve results were to be evidence-based/evidence-informed practices or interventions grounded in sound public health theory and consistent with the mission and scope of Colorado's MCH program. A clear MCH public health role needed to exist for an issue to be considered as a potential priority; in short, MCH must be able to make an impact. The process focused on meaningful involvement of multiple state and community stakeholders/partners to enhance collaboration, while looking for opportunities to coordinate and integrate MCH efforts both internally and externally across the MCH continuum.

Colorado's 2011-15 MCH needs assessment identified nine priorities and corresponding State MCH Performance Measures (Attachment A). Given that the needs assessment is the first step in the evidence-based public health (EBPH) process, MCH staff next focused on translating the needs assessment into an action-oriented planning process that would facilitate measurable change in the nine priorities within five years. The objectives of the planning process were to: 1) create a planning infrastructure that is based on EBPH and unifies MCH efforts; 2) develop concrete and consistent planning documents for each priority; 3) ensure synchronized strategies across MCH priorities between state and local agencies; 4) increase state and local staff capacity for public health planning and evaluation, including adoption of evidence-based public health strategies; and 5) increase accountability for a change in MCH health status.

### MCH Planning Process

Between September 2011 and August 2012, the MCH team utilized the systematic Evidence-Based Public Health Planning (EBPH) planning process to ensure effective implementation of strategies for the nine MCH priorities. Colorado's MCH priorities were to be implemented at both the state and local level, via 55 local public health agencies (LPHAs). The state infrastructure was reconfigured to better support planning and implementation. The MCH Steering Committee was re-chartered to make strategic decisions, provide oversight for MCH programs and funding, and coordinate capacity-building of state and local MCH staff. An MCH implementation Team (MIT) was formed for each of

the nine priorities with each having an identified leader, a management-level sponsor, advisory group and program evaluator. Some of the MITs also include representatives of the MCH populations, such as youth and families. The nine MIT Leads met quarterly to discuss Steering Team expectations, share lessons learned and resources, and identify ongoing technical assistance and training needs. In addition, MIT Leads provided progress reports at MCH Steering Committee meetings at least bi-annually. MCH Generalist Consultants continued to provide cross-priority technical assistance and program monitoring for LPHAs.

Using standardized tools, the MITs developed a long-term state logic model and corresponding three-year action plan for each of the nine MCH Priorities. The action plan template included evaluation and monitoring at the objective and activity levels. Short-term outcomes in the logic model were made operational as objectives in the three-year action plans. Medium-term and impact outcomes on the logic model corresponded to the State MCH Performance Measure(s) previously selected for each of the nine priorities. These were reviewed and approved by MCH leadership and Steering Team, informing revisions to state strategies and the development of local strategies. As part of this review, the committee confirmed that two MCH priorities, youth systems and preconception health, would not initially have a local component.

During January and February 2012, seven of the nine MITs developed and refined local-level logic models and action plans, which were again reviewed and approved by MCH leadership. Common feedback included clarifying and optimizing the roles of state and local agencies, prioritizing population-based interventions, and assessing the known evidence-level of strategies to ensure impact on MCH performance measures.

## **Implementation**

Full implementation required shifting state staff time and funding from work that was no longer prioritized to efforts aligned with the new priorities. This was not accomplished without some angst given the personal commitment of “MCH-ers” to their work. However, it was critical to assure the allocation of resources to implement the new approach.

In March 2012, the Colorado MCH Program hosted a three-day conference for all 55 LPHAs to present expectations for coordinated state and local planning efforts by priority. A change in Colorado’s local health agency funding formula and funding expectations was required and implemented to ensure adoption of these coordinated strategies at the local level. Contract expectations for the 14 core LPHAs included implementing care coordination and medical home approaches for the children and youth with special needs (CYSN) population and focusing a portion of their funds on MCH priorities and corresponding action plans. The funding portion required for implementation of part or all of these action plans increased incrementally from 10 percent in FY 2013 to 20 percent in FY 2014 and 30 percent in FY 2015. The 41 smaller LPHAs also had the option to align their MCH work with MCH priorities and MIT-developed strategies. Although LPHAs were required to spend only 10 percent of their funds on MCH priorities, they allocated a majority of their funds to population-based strategies from the MIT-developed action plan, increasing consistency of efforts across agencies and the state.

Standardized templates, instruction sheets, trainings, consistent technical assistance from a trained evaluator and prompt application of new knowledge contributed to increased capacity among MITs. During the MIT debrief in April 2013, staff members reported that the planning process increased

their level of collaboration across priority areas because they were simultaneously going through the same process and using the same tools. They also reported that the identification of one MIT Lead per priority facilitated accountability for the planning process.

Thirty-nine staff from 14 LPHAs completed the overall evaluation of the MCH planning process. Seventy-four percent of respondents expressed that the State MCH Program had done a “good” or “excellent” job communicating a clear and strategic direction for Colorado’s MCH work, including a focus on the nine MCH Priorities and population-based strategies. Eighty-four percent of respondents reported that local actions plans developed by state MITs were “very helpful” or “somewhat helpful” in developing the action plan for their agencies; and 81 percent said the action plans were “very” or “somewhat applicable” to their local communities.

## **Summary - Planning/Early Implementation Phases**

Colorado’s 2011-15 MCH needs assessment and planning blended into one seamless process with different phases, rather than distinct and disconnected processes. This collaboration helped keep MCH stakeholders across the state continuously engaged throughout the needs assessment, planning and implementation phases. Evaluation results indicate that participants were satisfied with the systematic planning process, especially the integration of state and local efforts. This process addressed many of the barriers to implementing EBPH principles in a real world setting. In addition to achieving the stated objectives, four key lessons were learned from this process.

### *1. Employ a system-wide approach to capacity-building*

Colorado MCH staff members come from a variety of clinical, social service and public health backgrounds. Responding to the varying level of experience with EBPH planning, epidemiology staff designed a supportive and applied approach to foster skill development. Standardized tools and detailed instructions established a common language and learning as a cohort facilitated peer exchange and support. As they moved through each step, MITs received timely and constructive feedback from their assigned evaluators, supervisors, and the review committee. Many people were working on the same deliverables, at the same time, in the same manner. This approach to capacity building went beyond training individuals and spurred a change in organizational culture within MCH.

### *2. Exercise strong leadership and maintain oversight*

The MCH Steering Committee provided strong leadership for this planning process. Clear expectations were communicated and, when needed, difficult decisions were made. With increased emphasis on evidence-based/informed strategies for the identified priorities, some existing initiatives could no longer be supported. This conserved limited resources and focused LPHAs on fewer program areas, but was challenging for state and local staff members personally attached to former initiatives.

A rigorous review process identified two priorities not ready for implementation at the local level - preconception health and youth systems building.

### 3. *Collaborate across public health sectors*

The planning process fostered more cohesion between the various programs funded under the MCH umbrella and was coordinated with other public health initiatives. In 2011, CDPHE identified 10 public health and environmental priorities known as Colorado Winnable Battles. Six of the nine MCH Priorities overlap with the Winnable Battles in focus areas, indicators and strategies (Table 1). A centralized committee reviewed all MCH state and local logic models and actions plans. From this vantage point, the committee was able to make connections for MITs to collaborate across their priorities or with Colorado Winnable Battles on similar interventions or target populations. Similarly, the committee was able to identify areas of duplication, gaps and common needs for technical assistance and evaluation tools. Standardized templates facilitated comparison of logic models and action plans across priorities. The review committee ensured that state and local plans were mutually supportive and working in tandem to achieve measurable outcomes. As a result, public health efforts were aligned horizontally across program silos and vertically between state and local agencies.

Roles and responsibilities were defined to maximize the expertise of individuals and accountability for results. LPHAs provided expertise in various MCH content areas and program implementation at the local level. Community involvement was assured by LPHA's engagement in MIT advisory groups, review of draft logic models and action plans, and participation in MCH Conferences. In addition, many LPHAs aligned this work with health priorities identified in their own jurisdictional public health improvement plans.

### 4. *Continued accountability at all levels*

As well as linking the nine priorities to performance measures, the state and local logic model for each priority identified short-term, medium-term and impact outcomes. The action plans articulated SMART objectives and developed methods to evaluate these objectives and monitor progress toward activities. Expanding the knowledge of MCH staff through trainings, in addition to partnering a program evaluator with each MIT, increased the quality and rigor of measurement and evaluation. This strong and standardized monitoring and evaluation component increased accountability to implement approved action plans. The evidence level and target population(s) for each strategy were discussed by the MCH leadership to ensure a focus on both evidence-based/evidence-informed and population-based strategies. Although not every funded strategy has the highest proven level of evidence, this process elevated the overall adoption of strategies that have a higher level of evidence.

Accountability and feedback have been maintained throughout implementation. MIT leads support LPHAs through individual technical assistance and multi-agency learning circles. MIT leads meet regularly with their sponsor, and a minimum of twice per year with the MCH Steering Committee. In addition, each MIT Lead writes an annual report on the status of his or her priority. Contracts with the 14 core LPHA are directly tied back to the nine MCH priorities, with a requirement to incrementally allocate 10-30 percent of funding to one or more MCH priority over the next three years. The MCH Generalist Consultant conducts three progress meetings per year with her assigned LPHA. Each of the 14 core LPHAs is required to write an annual report on the status of their action plans.

## **Review of Progress in Priority Implementation and Assessment of Outcomes**

Following two years of priority implementation, the MCH Steering Committee met to assess progress in meeting the state's goal of achieving measurable impact in the MCH priority areas by the end of 2015, assessing both state and local efforts. The group acknowledged that it is difficult to observe quantitative progress in population-based indicators even within a five-year period given the time required to generate population health impact. When setting the state performance measures during the 2010 needs assessment process, intermediate measures of population-based impact were chosen in an attempt to document incremental progress within 5 years, with the logical assumption that efforts similarly employed and maintained over time should ultimately lead to impact on more distal measures. At the mid-course review, the Steering Committee decided to analyze short-term progress, given that intermediate measures were as yet unlikely to be impacted at this time.

Assessing short-term progress/"success" proved to be challenging. In an attempt to do so, the Steering Committee established criteria to guide the assessment of both quantitative and qualitative results for state level priority implementation. Quantitative criteria included progress in meeting most or all of the short-term outcomes identified in the original state-level logic model for each priority. It was assumed that progress in meeting the short-term outcomes in the logic model indicated that the plan was sound, with continued implementation leading to achievement of mid-term or intermediate outcomes. In addition, any substantive changes in the national or state performance measure assigned to the priority were considered.

The group also expressed interest in capturing qualitative data which included the observations and impressions of those involved in priority implementation at both the state and local level. It was felt that these data might provide indicators of progress which may be associated with future success if the effort "stays the course." Qualitative criteria included MIT observations or reflections on priority implementation as well as the success and momentum generated by the various collaborations that were built around the effort such as the number of participants, quality of their participation and their willingness to provide in-kind resources. Finally, the group assessed whether or not additional financial resources were garnered and/or leveraged, in addition to MCH funds, to support the effort.

In addition to the MCH Steering Team's qualitative assessment of MCH priority efforts, state staff who support and monitor LPHA MCH priority efforts also convened to discuss LPHA MCH priority efforts. Criteria were developed to assess local progress for each MCH priority. Criteria included the quality of the local MCH priority action plan template, technical assistance and MIT consultation; local staff capacity (time, skills, knowledge); and agency, community and political will. The group also identified examples of excellence and discussed future considerations for each priority area.

### **Quantitative Impact - State Level**

At the state level, efforts making progress appear to have a well-developed logic model, with the majority of short-term outcomes being partially or fully met after two years of implementation. Data for national and state performance measures aligned with the priorities are reported in the following tables.

Priority 1	National/State Performance Measure	Baseline/ Current
<b>Promote screening, referral and support for perinatal depression.</b>	<b>SPM #3:</b> Percent of mothers reporting that a doctor, nurse, or other health care worker talked with them about what to do if they felt depressed during pregnancy or after delivery (PRAMS).	<b>SPM #3:</b> 2009: 72.6% 2010: 75.1% 2011: 76.6%
<p>One state performance measure is used to monitor progress for the perinatal depression priority. The prevalence of mothers reporting that a health care worker talked with them about what to do if they felt depressed during pregnancy or after delivery (state performance measure #3) increased each year since baseline, although the 2009 (72.6%) and 2011 (76.6%) estimates are not statistically significantly different. The 2012 data is delayed, but another increase in prevalence is expected given the success of the pregnancy-related depression priority at the state level and the support for mental health initiatives at the local level.</p>		

Priority 2	National/State Performance Measure	Baseline/ Current
<b>Improve developmental and social emotional screening and referral rates for all children birth to 5.</b>	<p><b>SPM #4:</b> Percent of parents asked by a health care provider to fill out a questionnaire about development, communication or social behavior of their child age 1 through 5. (CHS)</p> <p><b>SPM #5:</b> Percentage of Early Intervention Colorado referrals coming from targeted screening sources (EI Colorado).</p> <p><b>NPM #12:</b> Percent of newborns who have been screened for hearing before hospital discharge (Newborn Hearing Screening Program).</p>	<p><b>SPM #4:</b> 2011: 39.8% 2012: 53.0%</p> <p><b>SPM #5:</b> 2009: 34.3% 2010: 41.7% 2011: 42.5% 2012: 41.9%</p> <p><b>NPM #12:</b> 2009: 97.3% 2010: 97.3% 2011: 97.8% 2012: 98.3%</p>
<p>Current data support some success for the developmental and social emotional screening and referral priority. Due to changes in survey methodology, there are only two years of comparable prevalence estimates for the percent of parents asked to fill out a questionnaire about development, communication, or social behavior of their child (state performance measure #4). The estimates from 2011 (39.8%) and 2012 (53.0%) do not differ significantly. The 2013 estimate should provide a better picture of how this measure is trending. The percentage of Early Intervention referrals coming from targeted screening sources (primary care providers) increased 22% from baseline, demonstrating measurable progress. The percent of newborns screened for hearing before leaving the hospital (national performance measure #12) finally exceeded the target of 98% in 2012 when the measure reached 98.3%.</p>		

Priority 3	National/State Performance Measure	Baseline/ Current
<b>Prevent obesity among all children ages birth to 5.</b>	<p><b>SPM #6:</b> Percentage of live births where mothers gained an appropriate amount of weight during pregnancy according to pre-pregnancy BMI (birth certificate).</p> <p><b>NPM #11:</b> The percent of mothers who</p>	<p><b>SPM #6:</b> 2010: 33.1% 2011: 33.2% 2012: 33.7%</p> <p><b>NPM#11:</b></p>

Priority 3	National/State Performance Measure	Baseline/ Current
	breastfeed their infants at 6 months of age (NIS).	2009: 57.1% 2010: 52.4% 2011: 56.9% 2012: 56.5%
	<b>NPM #14:</b> Percent of children, ages 2 to 5 years, receiving WIC services who have a BMI at or above the 85 <sup>th</sup> percentile (WIC).	<b>NPM #14:</b> 2009: 23.5% 2010: 23.2% 2011: 24.2% 2012: 22.9% (rev. methods)

Early childhood obesity prevention is being monitored through one state performance measure and two national performance measures. Appropriate weight gain during pregnancy is measured using the 2009 Institute of Medicine guidelines starting with 2010 births, which is why 2010 is the baseline for this measure. There has been very little change in the percent of live births where mothers gained an appropriate amount of weight during pregnancy (state performance measure #6) over the last three years. Although the prevalence of breastfeeding at six months (national performance measure #11) was mixed over the years, Colorado is still close to meeting the Healthy People 2020 target of 60.6%. In 2012, Colorado ranked #1 among all states for the percent of babies that were exclusively breastfed at six months of age. The CDC discontinued its standardized reporting of WIC data for all states after the release of the 2011 data, thus the estimate of the percent of children ages 2 to 5 years receiving WIC services who have a BMI at or above the 85<sup>th</sup> percentile (national performance measure #14) for 2012 is not comparable to previous estimates. The 2013 and 2014 estimates should provide a better picture of how this measure is trending.

Priority 4	National/State Performance Measure	Baseline/ Current
<b>Build a system of coordinated and integrated services, opportunities and supports for all youth ages 9-24.</b>	<b>SPM#10:</b> The percentage of group members that invest the right amount of time in the collaborative effort to build a youth system of services and supports. (Wilder Collaborative Factor Inventory).	<b>SPM #10:</b> 2010: 20.0% 2011: 90.0% 2012: 75.0%

The youth systems priority is tracked through one state performance measure. The percentage of group members that invest the right amount of time in the collaborative effort to build a youth system of services and supports (state performance measure #10) increased from 20.0% in 2010 to 90.0% in 2011, but decreased to 75.0% in 2012. This decrease can be attributed to group turnover, as new members came into the group near administration of the Wilder survey. Limited time with the group influenced the new members' ability to properly gauge investment in the collaboration. The group working on this priority convened in 2010, which represents the baseline year for this estimate. In 2013, the collaborative group expanded to include additional members, so it is anticipated that this measure might show another change in 2013.

Priority 5	National/State Performance Measure	Baseline/ Current
<b>Improve sexual health among all youth ages 15-19</b>	<b>SPM #8:</b> Percentage of sexually active high school students using an effective method of birth control to prevent pregnancy (YRBS).	<b>SPM #8:</b> 2009: 26.4% 2011: 29.1%
	<b>NPM #8:</b> The rate of birth (per 1,000) for teens ages 15-17 (birth certificate).	<b>NPM #8:</b> 2009: 19.9/1,000 2010: 17.4/1,000

Priority 5	National/State Performance Measure	Baseline/ Current
		2011: 14.0/1,000 2012: 11.9/1,000

The youth sexual health priority is tracked with state and national performance measures. The change in the teen (15-17) birth rate (national performance measure #8) stands out in the table above. The data reveal a 40% decline between 2009 and 2012, dropping from 19.9 births per 1,000 teens to 11.9. This dramatic change is linked to the work of the Colorado Family Planning Initiative, a privately funded effort to increase the use of long-acting reversible contraception (LARC) in young women receiving services through Title X family planning clinics. LARC use more than quadrupled among patients ages 15-24 over the period, increasing from 4.5% to 19.4%. At the same time, Colorado's teen (15-19) birth rate ranking among all states improved from #29 (28 states had lower rates) in 2008 to #19 (18 states had lower rates) in 2012. The prevalence of sexually active high school students using an effective method of birth control to prevent pregnancy shows a potential increase, although the 2009 (26.4%) and 2011 (29.1%) estimates are not statistically different.

Priority 6	National/State Performance Measure	Baseline/Current
<b>Prevent development of dental caries in all children ages birth - 5.</b>	<b>SPM #7:</b> Percent of parents reporting that their child (age 1 -5) first went to the dentist by 12 months of age. (CHS).	<b>SPM #7:</b> 2011: 11.2% 2012: 10.3%

The dental caries priority has one associated state performance measure (#7) which is the percent of parents that reported that their child first went to the dentist by 12 months of age. Due to changes in survey methodology, there are only two years of comparable prevalence estimates for this measure which show very little change. The 2013 and 2014 estimates will give a better picture of how this measure is moving.

Priority 7	National/State Performance Measure	Baseline/Current
<b>Improve motor vehicle safety among all youth ages 15-19.</b>	<b>SPM #9:</b> Motor vehicle death rate for teens ages 15-19 (death certificate).	<b>SPM #9:</b> 2009: 12.7/100,000 2010: 12.1/100,000 2011: 10.3/100,000 2012: 11.4/100,000

The teen motor vehicle safety priority has one state performance measure which has shown improvement. The motor vehicle death rate for teens ages 15-19 years (state performance measure #9) decreased 19% from 12.7 per 100,000 teens in 2009 to 10.3 per 100,000 teens in 2011. The 2012 rate increased slightly to 11.4 per 100,000 teens, but the rate increased nationally as well. It is anticipated that the rate will decrease again in 2013.

Priority 8	National/State Performance Measure	Baseline/Current
<b>Reduce barriers to a medical home approach by facilitating collaboration between systems and families.</b>	<p><b>NPM #3:</b> The percent of children with special health care needs age 0-18 who receives coordinated, ongoing, comprehensive care within a medical home (National CSHCN Survey).</p> <p><b>National Outcome #2:</b> All children will receive comprehensive coordinated care within a medical home (CHS).</p>	<p><b>NPM #3:</b> 2009: 48.2% 2010: 48.2% 2011: 43.7% 2012: 43.7%</p> <p><b>NOM #2:</b> 2011: 57.8% 2012: 63.9%</p>

The medical home priority is being measured with two national measures. The prevalence estimates for CSHCN who receive coordinated, ongoing, comprehensive care within a medical home (national performance measure #3) are not significantly different. The survey that provides data for this measure is conducted once every four years, which is why the estimates are repeated. The prevalence estimates for the percentage of all children receiving comprehensive coordinated care within a medical home (national outcome measure #2) show an increase, but are not significantly different.

Priority 9	National/State Performance Measure	Baseline/Current
<b>Promote preconception health among women and men of reproductive age with a focus on intended pregnancy and healthy weight.</b>	<p><b>SPM #1:</b> Percentage of sexually active women and men ages 18-44 using an effective method of birth control to prevent pregnancy (BRFSS).</p> <p><b>SPM #2:</b> Percentage of live births to mothers who were overweight or obese based on BMI before pregnancy (birth certificate).</p>	<p><b>SPM #1:</b> 2011: 61.8% 2012: 68.3%</p> <p><b>SPM #2:</b> 2010: 43.2% 2011: 43.0% 2012: 44.3%</p>

The preconception health priority has two associated state performance measures. Due to changes in survey methodology, there are only two years of comparable prevalence estimates for the percentage of sexually active men and women using an effective method of birth control (state performance measure #1). The estimates from 2011 (61.8%) and 2012 (68.3%) do not differ significantly. The 2013 estimate should provide a better picture of how this measure is trending. Overweight or obese BMI was measured using the 2009 Institute of Medicine guidelines starting with 2010 births, which is why 2010 is the baseline for this measure. There has been very little change in the percent of live births to mothers who were overweight or obese before pregnancy (state performance measure #2) over the last three years.

## Qualitative Data/Observations - State Level

Qualitative data were collected from the MCH Steering Committee, MIT leads, MCH Generalist Consultants and LPHA partners. In addition, both state and local annual reports from the past two years were reviewed and analyzed to determine qualitative themes/trends. State and local information indicate that deliberate adherence to the action plan and timeline with real-time course corrections appears to be associated with progress. State MCH implementation team (MIT) leads report the importance of creating cohesive, quality advisory groups and partnerships to move the work forward. Advisory groups and partnerships have been particularly strong in efforts addressing pregnancy-related depression (PRD), early childhood obesity prevention (ECOP), youth systems building through CO 9-25 and developmental screening. All four of these priorities have garnered

additional resources or funding from other agencies/organizations based on the efficacy of their efforts. State staff capacity was also key. Efforts led by staff who were skilled in population health strategies and implementation enjoyed success and the quality of the technical assistance provided was key.

### **Qualitative Data/Observations - Local Level**

General trends identified in state-level qualitative assessment efforts were echoed. For example, LPHAs seemed more successful addressing the MCH priorities when the local MCH priority action plan included specific strategies and tools. Additionally, more agencies were likely to adopt the priority and implement it effectively when the specific plan could be broken down into smaller parts, each with specific strategies and tools. LPHAs often have limited resources and capacity to address an issue in its entirety so MCH staff may implement parts of local action plans. Early Childhood Obesity Prevention (ECOP) is an example of a high quality action plan that had multiple components. Each component contained specific strategies and tools for implementation. Assuring Better Development (ABCD), pregnancy-related depression (PRD) and medical home were examples of action plans that were difficult to break down into smaller parts. Smaller agencies in rural communities chose not to implement these plans due to limited staff capacity and the inability to compartmentalize. Some small, rural agencies, whose contract expectations required them to implement the medical home action plan, experienced challenges due to a lack of staff capacity to implement the plan in its entirety with fidelity as well as a lack of community will. State staff will continue to evaluate the success of LPHAs in meeting the majority of short-term outcomes identified in the local MCH action plans, as local implementation began a year after state initiation of priority efforts.

Most of the MITs provided strong and effective consultation to LPHAs on the MCH priorities. ECOP and PRD MITs were highlighted as consistently providing excellent technical assistance to local agencies. ECOP learning circles seemed to be most engaging and effective in supporting local partners.

Local staff capacity such as time, skills and knowledge varied across agency and MCH priority area. Most of the MCH priorities require LPHA staff to apply skills in community mobilization and systems building to address MCH priorities at the population level. Many LPHA staff lack these skills though specific priority action plans and tools such as ECOP, ABCD and PRD did assist LPHA staff in acquiring these skills for plan implementation. A few agencies also hired or reassigned staff members who have the appropriate skills from other parts of their agency to implement MCH priority work. Priority action plans that were less specific such as medical home presented challenges due to staff capacity.

Finally, state MCH managers and consultants discussed agency, community and political will per MCH priority area. In many communities, obesity was identified as part of LPHAs' public health improvement plans (PHIPs). Given the stakeholder involvement in prioritizing and developing counties' PHIPs, when LPHAs chose an MCH priority that aligned with their PHIP, success was more likely to occur. Given that 34 LPHAs prioritized obesity in their counties coupled with the strength and feasibility of the ECOP action plan, many LPHAs chose ECOP to implement as their MCH priority and experienced strong community support and agency will. Mental health was also prioritized by 21 LPHAs in their PHIPs and LPHA regional partnerships, so agency and community will for pregnancy-related depression was high. Unintended pregnancy and oral health were prioritized in some communities as well. Community will around youth sexual health has been historically challenging due to the political nature of the topic.

## **Colorado MCH Priorities Demonstrating Short-Term Progress/Success**

The mid-course assessment process indicated which priorities should continue to move forward “as is,” while also identifying those in need of change and/or course correction. Considering the quantitative and qualitative data available, it appeared that four of the nine MCH priorities (listed below) showed signs of success or progress.

1. Promote screening, referral and support for perinatal depression.
2. Improve developmental and social emotional screening and referral rates for all children birth to age 5.
3. Prevent obesity among all children ages birth to 5.
4. Build a system of coordinated and integrated services, opportunities and supports for all youth ages 9-24.

## **Colorado MCH Priorities to be Re-Assessed/Discontinued**

Priorities not currently meeting the criteria, listed below, will be re-assessed.

5. Improve sexual health among all youth ages 15-19.
6. Prevent development of dental caries in all children ages birth - 5.
7. Improve motor vehicle safety among all youth ages 15-19.
8. Reduce barriers to a medical home approach by facilitating collaboration between systems and families.
9. Preconception health was discontinued due to a lack of evidence-based population health strategies for implementation.

Re-assessment involves a variety of potential approaches/strategies, including course correction and quality improvement. Strategies for re-assessment include analyzing the logic models and action plans to assure feasibility and impact, re-assessing resource allocations to assure that the efforts planned align with the resources assigned, and analyzing other sources of funding for similar work to ascertain if MCH funding might be better leveraged or withdrawn in certain areas and re-allocated elsewhere. Staff capacity to effectively implement the action plan and to provide local level technical assistance will also be assessed for some priorities. Both oral health and medical home efforts will be focused and scoped in order to assure investment in activities most likely to lead to tangible progress. Given that evaluation funding is limited, the MCH Steering Committee plans to re-assess options for assuring incremental impact when full impact evaluation cannot be implemented for each priority. Given the lack of population-based strategies to impact preconception health, this priority was discontinued.

## **Summary**

At the state level, logic models proved to provide a “road map” for the development of action plans and implementation strategies that progressively move teams toward outcomes. Where strategies, as operationalized in annual action plans, were well-conceived and logically related to the identified short-term outcomes, progress was observed. Conversely, where progress was lacking, chosen strategies will be re-evaluated within the context of the original logic model to determine if the approach was not well aligned with the chosen short-term outcome or if action plan lacked precision and/or was implementation rigor. Garnering additional in-kind or financial

support, appears to be key in moving efforts forward. The skill of the MIT lead and strength of the technical assistance provided also appears to serve as an important component of success.

At the local/community level, all but three local health agencies (Tri County, Boulder and Larimer) use the majority of their MCH funds (excluding the Children and Youth with Special Needs program - HCP) on the priorities. Action plans created by the larger LPHAs have consistently improved and implementation appears to be of higher quality when local priority action plan templates have been utilized. Furthermore, more success has been observed following specificity in the action plan template, especially when the MCH Implementation Team (MIT) or MCH Generalist Consultants provide technical assistance when a plan activity is unsuccessful. Re-assigning staff skilled in population health or willing to learn these skills appears to be associated with the most effective MCH priority efforts.

Many LPHAs have aligned their MCH Action Plans with the issues identified as priorities in agency-specific local public health improvement plans, an unanticipated advantage in moving the work forward. Overall, the findings from a qualitative review of LPHA efforts support the conclusions of the MCH Steering Team's assessment of state-level priority implementation. There is demonstrated short-term impact being made at the local level on some of MCH priorities, particularly ECOP, pregnancy-related depression, and ABCD. MITs working on other priorities may need to refine their strategies and tools to optimally support LPHAs in implementing MCH priority work.

In summary, Colorado's evidence-based public health planning process established a critical infrastructure for implementation of the 2011-2015 MCH priorities. The inclusion of performance management strategies within the state's planning process assured the application of a systematic, real-time monitoring approach which is key in assuring that outcomes are ultimately realized. Processes such as this mid-course review afford Colorado the opportunity to assess implementation success to assure that priority efforts "move the needle" for MCH impact.