The Boulder County

Early Care and Education Indicators Report

Submitted to: The Early Care and Education Council of Boulder County

September 25, 2007

By: The OMNI Institute
Introduction

The OMNI Institute (OMNI) was contracted by the Early Care and Education Council of Boulder County (ECECBC) in August, 2006 to:

1. Conduct evaluations of several programs, and
2. Identify indicators that could be used to measure progress and outcomes in its emerging early care and education comprehensive system.

This report focuses on the latter objective and is organized in four sections. The first section describes the process OMNI undertook in working with members of the ECECBC Expert Committee to identify a set of indicators. The second provides brief definitions for the indicators used in this report. The third section describes the indicators that were selected to measure the Boulder County Early Care and Education System organized into two indicator categories: Systems Indicators and Intermediate Outcome Indicators. The final section provides a brief discussion of possible next steps in this process.

It should be noted that the Boulder County system development work has not been fully completed and modifications to the goals, objectives and strategies will likely occur as other committees and the general public provide input and advice on the comprehensive system plan. Therefore, the indicators described in this report should be seen as a first draft that will likely be updated in conjunction with plan modifications.

I. The Indicator Selection Process

There are a variety of approaches that can be taken in selecting indicators for a large system development effort. The Boulder County early care and education system development process was coordinated through the work of multiple committees. One of these, the Expert Committee, was comprised of representatives of the diverse service provider and policy community whose charge was to identify and prioritize programs/services and strategies for the larger system. This committee was further divided into several sub-committees organized around early care and education domains
including health, mental health, parental engagement and family support, and early care and education, to match participant expertise. Procedurally, the work of these groups was designed to support the drafting of early care and education priority areas, which could then be used to develop larger system goals and objectives.

OMNI assisted the Expert Committee in two specific areas. First, OMNI created a standardized, criteria-based worksheet to help structure and formalize dialogue around efforts to prioritize and critically review existing, and potential, programs and strategies. These worksheets and related contents were used to facilitate communication within and between the sub-committees and ensured that all work could be easily integrated upon completion. Moreover, the worksheets sought to tie potential indicators to identified programs and services, as a means of beginning the indicator selection process (the worksheet is provided as attachment 1).

OMNI also developed an introductory indicator presentation to help ground Expert Committee members in the basic concepts and uses of indicators within a system evaluation process. This was deemed important given the many interchangeable terms that are used to define and differentiate types of indicators. The presentation was used to help reach common agreement about how indicators would be defined for the purposes of the selection process, and how they would be employed with respect to ongoing system measurement. To support this learning, OMNI developed a PowerPoint presentation which was used in a workshop for Expert Committee members (the PowerPoint is provided as attachment 2).

Based on the work of the Expert Committee and sub-committees, a set of priority areas was developed that formed the core of Boulder’s early care and education system. These priority areas, though more generally stated than goals, provided a relatively clear picture of the system’s components and, thus, were helpful in furthering the indicator work. OMNI requested that a new sub-group of the Expert Committee be formed for the purpose of helping to select indicators based on these priority areas. This group, made up of those most knowledgeable about data issues, participated in two meetings facilitated by OMNI staff. These meetings resulted in the development of a first draft set of indicators. Finally, a consulting group was hired to develop a costing model for the Boulder system. This model contained a number of goal assumptions which were subsequently incorporated into the indicator set.

The following section provides a brief discussion of the definitions used to classify indicators within this report. This is followed by a presentation of the specific indicators selected for the Boulder early care and education system accompanied by some methodological considerations. The report concludes with a discussion of next steps that might be taken to move the indicator process forward.
II. Types of Indicators

The indicator presentation made to the Expert Committee differentiated various types and functions of indicators. Indicators, reflecting different levels of measurement, can be roughly organized into four different categories: program level measures, summative outcome measures, system measures and intermediate outcome measures. While all four of these are defined below, only system and intermediate outcome indicators are presented in this document, as those related to the other categories have not yet been selected.

At the most discrete levels are program outcomes that tie directly to individuals receiving one or more service. These outcomes tend to be defined in relation to evaluation efforts that are implemented to measure the relative effectiveness of services on particular individuals. Examples of this measurement include: curriculum outcomes within or across service providers, child education outcomes that reflect different program strategies or changes in parental involvement that result from outreach and education strategies. While this is a critical indicator area, specific measurement approaches cannot be developed until after programs and strategies are selected. Importantly, this is a costly area of data collection since evaluation methods need to be defined and supported within and across multiple program areas.

At the other extreme are what might be referred to as summative impact indicators. These indicators assess the larger, cumulative effects of programs and services on larger population groups. Importantly, these indicators don’t necessarily tie to a specific program area but measure effects in the aggregate. Examples of these indicators include school readiness as measured by test scores at kindergarten entry, improved child behavior as measured through a standardized survey instrument, or improved health as reflected in decreased reports of specific health concerns (e.g., oral health, immunizations, etc.). These indicators were also not defined due to the need to finalize the larger goals of the comprehensive system and because there is some concern about the ability to tie these population level measures back to system efforts. This indicator area will likely be examined in future Council discussions.

Two indicator areas, however, are outlined in this document: system indicators and intermediate outcome indicators. System indicators reflect larger infrastructure areas that are needed to be put in place to achieve the intermediate early care and education outcomes. These indicators tend to be focused to a greater extent on the measurement of system processes. For example, a goal of Boulder’s system is to improve the qualifications of early care and education staff. This requires the training and education systems whose development and implementation can be measured through process-oriented indicators. Similarly, because the proposed system is not cost-neutral, there is a need to identify and obtain additional resources. Targets can be set for the amount of resource
needed to fully fund the system, and resource development efforts can be tracked to determine their relative effectiveness in meeting targets.

Intermediate outcomes, as suggested by the term, are outcomes that if achieved would likely result in the realization of larger summative impacts. For example, as mentioned above, Boulder’s early care and education system has a goal of improving staff quality. Indicators that could be used to measure quality changes include more advanced degrees, expanded credentials or specialized training. For the purposes of this report, intermediate outcomes are a means of determining the general effects of systems efforts. Both system and intermediate outcome indicators are organized below in their respective sections.

III. Selected Indicators

The tables below provide a list of the system and intermediate outcome indicators. These indicator areas are further subdivided into two additional groupings:

1. System indicators:
   - Base System and
   - System Component

2. Intermediate outcome indicators
   - Availability and Accessibility
   - Quality Improvements

The indicator sets are listed in tables followed by a brief summary of basic measurement issues.

A. System Indicators

System indicators for the Boulder early care and education system are divided into two areas. The first area includes a set of indicators that measure four base elements of the system that are required for general functioning. The second set reflects larger system components that correspond more closely to the intermediate outcomes indicators, presented below.

1. Base System Indicators

<table>
<thead>
<tr>
<th>Indicator Area</th>
<th>Sub-Indicator Areas</th>
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</thead>
<tbody>
<tr>
<td>Create system development groups and complete related tasks.</td>
<td>- Leadership Committee is formed</td>
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<td>- Community forums are implemented and</td>
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<td>community input integrated into plan</td>
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<td>- Report of the community input and revised system</td>
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<td>Indicator Area</td>
<td>Sub-Indicator Areas</td>
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<tr>
<td>Realize system financing goals</td>
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<td>(approximately $11-14 million dollars).</td>
<td>- Resource development plan is created and implemented</td>
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<td>- Targeted level of provider payment costs is reached</td>
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<td></td>
<td>- Targeted level of family payment costs is reached</td>
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<tr>
<td></td>
<td>- Targeted level of supplemental service costs is reached</td>
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<tr>
<td></td>
<td>- Targeted level of funding for quality improvement costs is reached</td>
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<tr>
<td>Develop a comprehensive inventory of the availability of care, education and health services in the current system.</td>
<td>- Development of a methodology for the collection of system resource information</td>
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<td></td>
<td>- Develop and conduct a survey based on the methodology of existing system resources</td>
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<td></td>
<td>- Development of a data system to manage resource data</td>
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<tr>
<td>Develop, finance and implement an evaluation plan to measure system impacts</td>
<td>- Create a protocol outlining data collection methods that reflect assessment at all levels (program, intermediate, summative and system)</td>
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<tr>
<td></td>
<td>- Finance the evaluation process</td>
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<td>- Implement the evaluation protocol</td>
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</tbody>
</table>

The work of the Expert Committee and Finance Task Force helped define major system components and related costs. In moving forward, two additional committees are required to complete the system development process: The Leadership Committee and the Governance Task Force. These groups have specific missions which, taken together, will result in the completion of Boulder’s comprehensive plan. Indicators related to these groups’ efforts reflect mission-specific processes and milestones which will be measured in relation to projected dates of completion (to be determined later).

In addition, the early care and education system includes a number of cost assumptions that were developed through the efforts of the University of Washington’s Human Services Policy Center. A document prepared by this Center for the Early Care and Education Council of Boulder outlines a variety of cost assumptions for all major system components, which are listed in the Sub-Indicator

5
box adjacent to “System Financing Goals.” Financial targets will be set for each cost area and these will be monitored relative to resource development efforts.

A goal of the Boulder early care and education system is to expand the availability of a number of services. In order to measure changes to the system, it will be important to first obtain a baseline measurement of the system’s current capacity in all relevant areas. This indicator reflects the measurement of steps that would be taken to define a data collection methodology, develop and implement related data collection tools, and organize a management information system capable of managing this data set. This database would subsequently be used to measure changes in system capacity over time.

Finally, the system will require the development, financing and implementation of an evaluation process to measure system activities and impacts. An evaluation effort is critical for monitoring the various indicators outlined in this document as well as other efforts focused on program and service outcomes and/or summative impacts. This indicator area will be measured through the specification of different milestones and projected completion dates leading to the implementation of an overall evaluation process.

### 2. System Component Indicators

<table>
<thead>
<tr>
<th>Indicator Area</th>
<th>Sub-Indicator Areas</th>
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</thead>
<tbody>
<tr>
<td>Implementation of a quality care and education improvement system.</td>
<td>- Selection of one or more rating systems that measure quality improvements in center and home-based care</td>
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<td>- Development of center-based provider criteria reflecting quality expectations</td>
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<td>- Development of family care criteria reflecting quality expectations</td>
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<td></td>
<td>- Development and implementation of training, staff and supports needed to support quality improvements in center and family-based care</td>
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<tr>
<td></td>
<td>- Development and implementation of training, staff and supports needed to improve cultural competency and language diversity</td>
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<tr>
<td>Implementation of outreach, support and education efforts for Family, Friend and Neighbor Care providers (FFN).</td>
<td>- Development and implementation of a model program to support and improve Family, Friend and Neighbor care</td>
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<tr>
<td></td>
<td>- Creation and implementation of a management information system to capture services related to FFN care support</td>
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<tr>
<td>Indicator Area</td>
<td>Sub-Indicator Areas</td>
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</tbody>
</table>
| Implementation of staff quality improvement efforts (training services, credentialing, etc.). | - Develop definitions for staff quality expectations relative to education levels, specialized training and other credentials  
- Set targets for staff quality goals  
- Outline the components of a staff training system  
- Implement the training system |
| Implementation and/or expansion of infrastructure needed to support health and education screening, referral and treatment services. | - Creation of a strategic plan that describes a systematic process for increasing the capacity for the provision of screening, referral and treatment services  
- Development of a system to train and implement screenings and referral activities to the provider community  
- Development and expanded implementation into increasing number of settings  
- Increase in the capacity to manage resource and referral information |

The indicators in the table above reflect the four areas that comprise the major components of Boulder’s comprehensive plan. Importantly, these areas relate directly to the achievement of intermediate outcomes (defined below). Therefore, monitoring the contents and implementation of these components will provide important information about the larger system’s performance as reflected in intermediate outcome indicators.

A key component of Boulder’s early care and education plan is improving the quality of services in both center and family-based settings. Quality is reflected in both core service areas as defined in objective measurement tools (e.g., Qualistar, Results Matter) as well as improved cultural competency of provider staff. Outlined in the sub-indicator area are the key milestones that would be met to demonstrate progress in implementing a quality improvement effort.

A second related area reflects system activities designed to improve the quality of Family, Friend and Neighbor (FFN) care services. These providers, which are typically unlicensed and who may not speak English as a primary language, require supportive services that are less traditional than those that might be offered to licensed centers and/or family care providers. This indicator area outlines system activities that are needed to train and support FFN care providers and will be measured based on the achievement of milestones related to these activities.

Another key component of Boulder’s system is working to improve the quality of staff through the provision of training services or education opportunities. This indicator area focuses on the creation
of a training and education system that helps to raise staff qualifications. Sub-indicator areas reflect steps that would be taken to get a system created and operational.

Finally, a key outcome of Boulder’s comprehensive system is improving the health of children. This outcome can be met, in part, through increasing system capacity to conduct screenings and provide referrals and treatment services. To make improvements in this area, Boulder will work to increase the capacity of the current service provider network to take on these roles. The measurement of this indicator reflects the various efforts that will be needed to implement training and support to providers to increase their capacity to screen and refer youth and families to needed services.

B. Intermediate Outcome Indicators

Intermediate outcome indicators are divided into two categories: Availability and Accessibility of Services and Quality Improvements. Each of these are presented and discussed below.

1. **Availability and Accessibility Indicators**

<table>
<thead>
<tr>
<th>Indicator Area</th>
<th>Sub-Indicator Area</th>
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</thead>
</table>
| Increase the number of early care and education slots for children 3-5 in all settings. | - Number of family-based child care homes  
- Number of center-based slots  
- Number of family, friend and neighbor care providers  
- Number of licensed child care homes |
| Increase the number of infant and toddler care options. | - Number of ½ day care options  
- Number of full day care options |
| Increase the number of publicly-funded early care and education slots. | - Number of Head Start slots  
- Number of Early Head Start (does not currently exist in Boulder).  
- Number of Colorado Preschool and Kindergarten Program slots (CPKP)  
- Number of Child Care Assistance Program slots (CCAP) |
| Increase the number of providers who implement screening, referral and follow-up to better detect health concerns including vision, hearing, dental, mental health and developmental delays. | - Number of providers trained  
- Number of children screened by child care setting  
- Number of children identified with assessed issues  
- Number of children referred for services  
- Number of children who receive services based on a referral |
Three capacity related indicators have been identified for the measurement of availability and accessibility of care:

- Center and family care slots, including family friend and neighbor care
- One-half and full-day care options, and
- Increases in the availability of publicly funded care slots.

In addition, one indicator was selected to measure the availability of screening, referral and treatment services. Each of these areas is further divided into sub-indicator areas, to allow for the measurement of specific care modalities.

Base-line rates for each of these indicators will be established through the system inventory, described in the “System Indicator” section above. This survey will be repeated annually to assess changes in each sub-indicator area.

2. Quality Improvements

<table>
<thead>
<tr>
<th>Indicator Area</th>
<th>Sub-Indicator Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve quality in family and center-based care.</td>
<td>- Number of centers and homes rated</td>
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<td></td>
<td>- Distribution of home-based quality at three levels (20% Basic, 65% Moderate, 15% High)</td>
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<tr>
<td></td>
<td>- Distribution of center-based care quality at three levels (15% Basic, 80% Moderate, 5% High)</td>
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<tr>
<td>Improve quality of family, friend and neighbor care (unlicensed, unregulated care).</td>
<td>- Number of FFN care providers identified for service</td>
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<td>- Number of FFN with improved quality</td>
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<td></td>
<td>- Number demonstrating improved understanding of legal service compliance.</td>
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<tr>
<td>Improve staff quality in all settings.</td>
<td>- Baseline assessment of staff credentials and education levels within care types.</td>
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<td>- Number and types of credentials obtained by staff and education levels/types of degrees</td>
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<tr>
<td>Increase the number of staff trained in the provision of services to special needs populations.</td>
<td>- Number of staff with specialized licenses or credentials</td>
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<td></td>
<td>- Number of center and home providers capable of meeting special population needs</td>
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<td></td>
<td>- Number of staff providing special assessments</td>
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<tr>
<td></td>
<td>- Number of mental health consultations provided</td>
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<tr>
<td></td>
<td>- Number providers offering family support and education services related to special population needs</td>
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<tr>
<td>Indicator Area</td>
<td>Sub-Indicator Areas</td>
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<td>---------------------------------------------------------</td>
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<tr>
<td>Increase staff cultural competency and diversity.</td>
<td>- Relationship between population and the language skills and diversity of staff</td>
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<td></td>
<td>- Number of staff trained in cultural competency</td>
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<td>- Assessed staff skill and knowledge related to cultural competent service provision</td>
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<tr>
<td>Improve the compensation and retention of staff.</td>
<td>- Wage levels in all settings</td>
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<td>- Retention rates in Centers</td>
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<tr>
<td>Increase family involvement in care-related activities.</td>
<td>- Increase the number of providers who offer family engagement and education services</td>
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</table>

The table above lists the set of indicators that were identified by the Expert Committee to measure changes to the quality of the overall early care and education system. In general, these can be grouped into the following areas:

- Improvements in quality of care provision: center, family-based care and FFN care
- Improvements in staff quality: staff credentials, special services, cultural competency and compensation, and improved compensation and retention, and
- Improvements in the degree of family involvement in care.

Obtaining assessment data for these indicators will require the use of multiple data collection strategies. These include the following:

- Measurement of improved quality in care settings will be achieved by organizing and analyzing information collected during the quality rating process.
- Information related to family, friend and neighbor care will be collected during efforts to identify and provide training to these service providers. Follow-up surveys will be conducted to assess changes in quality and knowledge of service compliance regulations.
- Measurement in changes to staff qualifications, credential, special population certifications and cultural competency will be established through a baseline and ongoing survey of staff in various settings.
- The measurement of staff compensation and retention, staff diversity, the provision of services to special populations, and family engagement efforts will be collected through the implementation of an annual center survey.
IV. Possible Next Steps

The Early Care and Education Council of Boulder County is moving into the next phase of system development work which includes the formation of the Leadership Committee and the scheduling of community forums to obtain citizen input. While this input might change some aspects of the comprehensive plan, it is expected that most of the component areas described above will remain in some manner. Given this reality, it is possible to start laying the foundation for data collection efforts that will be needed to assess some of the future system and intermediate outcome areas. The following discussion outlines possible next steps that could be taken to begin these data collection efforts.

1. **Outline process to obtain an inventory of current resources.**
   The collection of information related to the capacity of Boulder’s current early care and education system is a large undertaking. However, this data set, once obtained, will serve multiple purposes with respect to ongoing system building and later assessment efforts. It is possible to begin this process now, focusing on three primary areas:
   i. Center-based providers
   ii. Licensed family-home providers
   iii. Publicly supported slots

2. **Explore ways to access the Family, Friend and Neighbor Care provider system.**
   The FFN system is informal and somewhat difficult to access. The provision of services designed to help grow the capacity and quality of these providers will need to be carefully planned. It may be useful to conduct an exploratory study of the current FFN care provider network and use this effort to assess methods for effective outreach.

3. **Develop survey for Centers to gather baseline data.**
   The Centers are a rich source of information on staff and service capacity. As with the larger care network, it will be important to establish a baseline measure of staff and service related indicators that can be used for later comparisons. It is recommended that the survey effort initially focus on the following areas:
   i. Education levels and credentials by service role
   ii. Staff diversity
   iii. Retention rates by service role
   iv. Capacity to provide screening and referral services
   v. Nature and extent of parent education and involvement efforts
4. **Begin research on quality rating systems.**
   It may also be useful to begin researching the strengths and weaknesses of different quality rating systems for centers and homes. Currently, there are plans to support the use of one or more rating system. While this provides for greater flexibility, it also creates potential problems for the integration of data and the measurement of quality improvements over time, given differences in criteria. Given the relationship between quality improvements and outcomes, this is a critical area that should be explored.

5. **Begin the exploration of program level and summative impact measures.**
   Finally, indicators for program level and summative impact areas have not been defined. This is appropriate given that the programs and strategies have not been finalized and community input has not been collected and considered with the larger context of the comprehensive plan. However, once specific programs and strategies are selected, it might be useful to revisit the topic of assessing program level outcomes, which will require the development of evaluation methods, data collection tools and ongoing analysis and reporting. Moreover, the ultimate measures of system performance may be assessed through the use of health, behavior and education related indicators. However, this is a topic that must be revisited with additional experts, as these are difficult areas to measure in the aggregate. Nevertheless, most early care and education system projects utilize these types of indicators which should be examined for potential compatibility with Boulder’s system.
Attachment 1

Boulder County Early Care and Education

Strategy Matrix
Domain: __________________________
Goal # _____
Goal Name: ____________________________________________________________
Goal Description: _________________________________________________________

Possible Outcomes/Indicators: __________________________________________________________

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Type</th>
<th>#</th>
<th>Need Gap Strength</th>
<th>Description</th>
<th>Target</th>
<th>Method</th>
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<tbody>
<tr>
<td>1</td>
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<td>Child 0-3 Child 3-5</td>
<td>Service Policy Training Infrastructure</td>
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<td>Strategy #</td>
<td>Short-Term Process Measures</td>
<td>Short-Term Outcome Measures</td>
<td>Long-Term Process Indicators</td>
<td>Long-Term Outcome Indicators</td>
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Attachment 2

Boulder County Early Care and Education

Indicator Presentation
EXPERT COMMITTEE MEETING

Thursday April 5, 2007

A Framework to Support System Development Work
Meeting Agenda

Welcome
5 minutes

Presentation of indicators in the context of systems planning work
30 minutes

Presentation of the proposed structure for the development of indicators/outcomes
30 minutes

Hands-on exercise: developing goals, strategies, indicators (comments)
45 minutes

Next steps
10 minutes

OMNI Institute (4/07)
Meeting Goals

- Develop an understanding and appreciation for the role indicators play in a system development process.
- Present and obtain feedback on a framework for identifying outcomes/indicators that will be used by the small work groups in their needs/gaps/strengths/priorities dialogues.
- Conduct an exercise with the full Expert Committee utilizing the framework to help focus and standardize the small work group needs/gaps/strengths/priorities activities.
What you are about to hear is not the “one best way” but simply a way to organize a complex set of concepts.

There are other ways (some possibly better?) to organize these same concepts, so this serves as a beginning, not an end.

With that spirit in mind, the contents are open for debate and restructuring (so long as changes are adopted uniformly across all groups).

The terminology we will use is fuzzy and hard to pin down because “it depends”.

OMNI Institute (4/07)
## The 8 Primary Measurement Types

<table>
<thead>
<tr>
<th>Terms</th>
<th>Definitions</th>
<th>Examples</th>
<th>Related Terms</th>
</tr>
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<tbody>
<tr>
<td>Client Characteristics</td>
<td>Description of the service population</td>
<td>Age, sex, ethnicity</td>
<td>Demographics</td>
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<td>Intake information</td>
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<td>Inputs</td>
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<td>Problems/issues</td>
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<td>Client Needs (related to outcomes)</td>
<td>Description of needs</td>
<td>Experimental drug use vs. addiction</td>
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<tr>
<td>Strategies</td>
<td>Your approaches</td>
<td>Mentoring</td>
<td>Process measures</td>
</tr>
<tr>
<td>Activities</td>
<td>What you do</td>
<td>Contact w/ mentor</td>
<td>Interventions</td>
</tr>
<tr>
<td>Outputs (dosage)</td>
<td>How much</td>
<td>Hours of contact</td>
<td>Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dose</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Change in knowledge, beliefs, behaviors, attitudes, bonding</td>
<td>Improved school bonding</td>
<td>Short-term/long term</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Proximal/distal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Risk/protective factor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Contributing factors</td>
</tr>
<tr>
<td>Objectives</td>
<td>How much change</td>
<td>20% increase in bonding</td>
<td></td>
</tr>
<tr>
<td>Indicator (of Goal Achievement)</td>
<td>What the outcomes can achieve in the long run</td>
<td>Youth will be more successful in school</td>
<td>Impacts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Long-term outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vision</td>
</tr>
</tbody>
</table>
Getting to Indicators

- For simplicity, let’s boil this down to two types:

  - **Process**: the measurement of what we do, how we do it, with whom, etc.

  - **Outcome**: the measurement of the results we get from our efforts (our processes)
Distinguishing Between Program Evaluation and System Evaluation

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Getting to Indicators

Arbitrarily:

- Let’s call anything we look at in the short-term a measure which will roughly equate to program or strategy evaluation
- Let’s call anything we look at in the long-term an indicator which will roughly equate to system evaluation
<table>
<thead>
<tr>
<th>Process</th>
<th>Measure</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Program/strategy Evaluation</td>
<td>System Evaluation</td>
</tr>
<tr>
<td>Outcome</td>
<td>Program/strategy Evaluation</td>
<td>System Evaluation</td>
</tr>
</tbody>
</table>
Getting to Indicators

Examples of Process and Outcome measurement

- **Process**
  - Number of clients served by a program (M)
  - Quality of services provided by a program (M)
  - Degree of plan implementation (I)
  - Degree of service expansion (I)

- **Outcome**
  - Immediate program effects on clients (M)
  - Effects on a targeted group of individuals (I)
  - Impacts observed across the community (I)
Getting to Indicators

What is an indicator?

- Something that provides a measurement of our progress toward a goal
- A way to measure, indicate, point out or point to with more or less exactness
- Something that is a sign, symptom or index of
- Something used to show visually the condition of a system
Getting to Indicators

What is the role of indicators?

- An effective indicator or set of indicators helps a community determine where it is, where it is going, and how far it is from chosen goals.
- They help make complex systems understandable or perceptible.
- Indicators are sometimes called “performance targets” since they help direct us to where we want to go.
Getting to Indicators

- Indicators can reflect either Processes or Outcomes.

- However, Indicators tend to be measured over the longer term and at a larger aggregate level (for example Boulder County or across a population group) as they are associated with larger, cumulative outcomes.
Getting to Indicators

How are indicators typically defined?

- Domain
  - Dimension
- Goal
  - Data element (indicator)

- Domain: Health
  - Dimension: Oral Health
    - Goal: Increase children’s access to dental care by X percent
      - Data element: % of children with access to regular dental care
Getting to Indicators

- How do we impact an indicator?

- Strategies
  - Cumulative Process Measures
    - Short Term
  - Cumulative Outcome Measures
    - Long Term

- Process Indicators
- Outcome Indicators

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Getting to Indicators

Program vs. System Evaluation

- Strategies
- Process Measures
- Outcome Measures
- Area for Program Evaluation
- Community Process Indicators
- Community Outcome Indicators

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Getting to Indicators

The logic of system planning work (the Model)

Goal 2

Domain

Goal 1

Process Indicators

Outcome Indicators

Strategy 1

Strategy 2

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Getting to Indicators

Why are these logical relationships important?

- To be confident that we have a chance of changing an indicator requires that we have a logical theory of change that runs through our model.
- Careful attention to these linkages helps us select the best single or mix of strategies to achieve our goals, thereby impacting our indicators.
- Often we don’t have certainty that what we proposed will have the effects we want. So starting with a strong, logical model helps us evaluate what did and did not work and informs later decisions.
Getting to Indicators

What makes a good indicator – some criteria?

- Availability
- Reliability
- Validity
- Sensitivity to Change
- Policy Relevance
- Understandability
System Development
Assumptions
(why talk about assumptions?)
Why Talk About Assumptions

- They keep us grounded in our work
- They allow us to share a common frame of reference
- If we share assumptions, we are better able to communicate
- If we are unclear, we may agree when we really disagree or disagree when we really agree
System Development Assumptions

- Time Frame of the Goals: Five Years
- Goals are to be organized around identified Domains of Early Childhood Development:
  - Health
  - Mental Health
  - Early Learning
  - Parenting/Family Support
- Is “Quality” a domain or is it a principle or attribute of our strategies? (a shared assumption?)
The plan should identify strategies in relation to:

- **Needs**: defined as areas of the system that are not at full capacity and thus need to be expanded in order to fulfill one or more goals.
- **Gaps**: defined as missing parts of the system that need to be put in place in order to fulfill one or more goals.
- **Strengths**: defined as well-functioning parts of the system that could be expanded to better fulfill one or more goals.
System Development Assumptions

- Strategies are always defined in relation to a goal
- Goals will be defined primarily within Domains but it is also possible to develop goals that work across the larger system.
- Typically, there are four ways (types of strategies) to respond to a problem:
  - Provide or expand services
  - Develop or refine infrastructure (improve systems, increase coordination, increase quality, etc.)
  - Provide training services to improve skills or service delivery
  - Develop and implement policy
System Development
Assumptions

- There are four possible targets for these responses:
  - Children (0-3 and 3-5)
  - Parents/Family
  - ECE-Providers
  - The larger system

- There are multiple principles (goals) that should infuse the system (e.g., comprehensive, inclusive, etc.). These principles should be used to judge both individual and overall components of the plan.
Internal Plan Structure
The Framework
Internal Plan Structure

- Domain: One of the four (5?) Domains
- Goals: each goal should have two descriptive elements:
  - Brief statement of the goals
  - Longer statement describing why this is a goal (assessed problem) and, generally speaking, what the desired improvement is
- Possible Indicators:
  - Measures that would be used to determine progress on the outcome
Internal Plan Structure

- **Strategy:** Each Goal will have one or more strategies.
- **Strategies** will all have several characteristics:
  - Whether it reflects a gap, need or strength
  - A given target population
  - A method of delivery
Internal Plan Structure

- Outcomes and Indicators: Each strategy should have one or more:
  - Short-term Process Measures
  - Short-term Initial Outcome Measures
  - Long-term Process Indicators*
  - Long-term Outcome Indicators*
Developing our Model

1. Domain:
2. Goal #:
3. Goal Name:
4. Goal Description:
5. Possible Process/Outcome Indicators:
## Defining Strategies

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Strategy</th>
<th>Target</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Need/Gap/Strength</td>
<td>Description</td>
<td>Child 0-3, Child 3-5 Family/parent Provider System</td>
<td>Service Policy Training Infrastructure</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Defining Measures/Indicators

<table>
<thead>
<tr>
<th>Strat #</th>
<th>Process Measures</th>
<th>Outcome Measures</th>
<th>Long Term Process Indicators</th>
<th>Long Term Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Developing our Model

1. Domain: Health
2. Goal #: 1
3. Goal Name: Improve dental health of children in the 3-5 age group.
4. Goal Description: Children in the 3-5 age group in Boulder have an X percent greater rate of dental caries than the state average. Dental Caries will decrease by x amount each year for the next five years.
Developing our Model

5. Possible Process/Outcome Indicators:
   • Increased provision of fluoride by primary care physicians
   • Assessed rate of dental caries
## Developing our Model

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Target</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need/Gap</td>
<td>Training to primary care physicians on the efficacy and risks of fluoride provision</td>
<td>Providers</td>
<td>Training</td>
</tr>
<tr>
<td>Gap</td>
<td>Training to primary care physicians on the efficacy and risks of fluoride provision</td>
<td>Providers</td>
<td>Training</td>
</tr>
<tr>
<td>Need</td>
<td>Provision of fluoride services to at-risk populations</td>
<td>Child 3-5</td>
<td>Service</td>
</tr>
<tr>
<td></td>
<td></td>
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## Defining Measures/Indicators

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<th>Long Term Process Indicators</th>
<th>Long Term Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td># of training sessions provided # providers trained this year</td>
<td>Satisfaction with training</td>
<td>% of all providers trained</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>% change in access to fluoride</td>
<td></td>
<td></td>
<td>% decrease in dental carries</td>
</tr>
</tbody>
</table>
Assessing The Model

- Is there evidence (data) to support the importance of the selected goal?
- Are there strong linkages (research support) between the selected strategies and defined goal?
- Is there evidence to support the selection of the identified strategies (evidence-based, best practice)?
- Is there sufficient coverage across the strategies that suggest, taken together, the goal/indicator will be impacted?
Assessing The Model

Are your ECE Goals Represented within and across the Models?

- Comprehensive
- Family and child-centered
- Focused on prevention
- Affordable, accessible, available
- Coordinated and integrated
- Accountable
- Sustainable