

CHEAT SHEET FOR USING **MEDICAL CHARTS** TO MEASURE THE PERCENT OF CHILDREN SCREENED TO IDENTIFY DEVELOPMENTAL CONCERNS

Overview of Using Medical Chart as A Data Source for Measurement:

Medical charts are a commonly used source of data for measuring activities that occur in a primary care practice. Valid and feasible methods for auditing medical charts to assess whether children are screened and care processes that resulted from the screening results have been developed by the ABCD II consortium states.

Measure of the Percent of Children Screened Using **MEDICAL CHARTS**

Numerator: Number of eligible children whose charts indicate that a standardized screening was conducted.

X 100

Denominator: Number of eligible children whose charts were reviewed and who should have been screened.

Key Clarifying Questions to Ask In Using the **MEDICAL CHART** to Measure % of Children Screened

The following questions need to be carefully answered in order to include detailed, specific information in the medical chart abstraction tools guiding the measurement efforts.

Clarifying Questions Related to the Numerator:

- **What specific tools count for standardized screening?**
 - Detailed instructions about the specific tool, names and properties need to be included in the medical chart abstraction tool and/or provided to each person conducting the audits.
- **Do the completed tools need to be in the chart?**
 - If so, this needs to be clearly explained to the sites being measured.
 - If not, what will be the minimal amount of information based on the tool results required in the chart in order for the provider to get credit that screening was conducted?
- **What if the practice gave the tool to the parent, and had the parent take it home?**
 - Does it only “count” if the tool is completed and sent back?
 - If so, then the potential time it takes the parent to complete the tool needs to be taken into account and specific parameters set for when the chart would be labeled as “Parent given the standardized tool, but the parent did not complete and return it.”
- **When and how often should the screening occur?** The instructions in the medical chart abstraction tool need to take into account the recommended periodicity of the screening.
 - An example of a periodicity schedule is the *American Academy of Pediatrics Statement on Identifying Infants and Young Children with Developmental Disorders in the Medical Home* (July, 2006) recommends children be screened with a standardized

tool at the 9-month, 18-month and 30-month (and if the provider does not do a 30-month visit, then the 24-month visit)

- If age-specific algorithms are established, it is important to consider lags between when a child is supposed to receive care and when they may actually come in. For example, it is important to identify children who may have come in for their “9-month visit” when they were actually 10 months old.

Clarifying Questions Related to the Denominator:

- **Who should have been screened and therefore whose charts should be examined?**
The denominator for the measures then is the number of eligible charts reviewed. Some health systems have centralized information about their patient population that allow one to draw a “sample” of eligible charts that are defined by a set of criteria (see below). If the health system does not have this information, then charts will have to be selected randomly and then eligible charts meeting one or more of the criteria below will be used
 - **Visit:** Should medical charts of only children who had a well-child visit be reviewed? When should that well-child visit have occurred? Are there only specific well-child visits for which screening is required?
 - **Age of Child:** Should medical charts be reviewed for children of a specific age? Should the sampling for the medical charts be specific to age-groups of children for which screening should occur?
 - For example, should age-specific samples be drawn for the age-periods at which a child should be screened based on the AAP statement (*e.g. Five charts for children receiving the 9-month well child visit, 5 charts for children receiving the 18-month well child visit, and 5 charts for children receiving the 30-month well-child visit.*).
 - Again, it is important to consider lags between when a child is supposed to receive care and when they may actually come in. For example, it is important to identify children who may have come in for their “9-month visit” when they were actually 10 months old.
 - **Language:** In what language(s) is the standardized developmental screening tool being administered? Is it possible to identify the language of the child in the medical chart and to possibly remove those who were ineligible for the standardized screening because the tool was not available in their language?
 - **Need criteria:** Should children already identified with developmental concerns be screened?
 - If not, are there feasible methods to identify these children in the medical chart and remove them from the sample of eligible charts to review?

Other General Issues Related to Using Medical Charts for Longitudinal Measurement

- **Unit of analysis:** It is important to consider who is being assessed (e.g. the “unit”) and how charts specific to those health care providers can be identified. This will ensure that valid methods are used to measure and evaluate the efforts underway.
 - For example, most offices are comprised of more than one provider. If all of the providers are participating in the screening project, then office-level sampling can be conducted in way that takes into account the number of providers in each office.

- However, if only specific providers are participating then standardized methods for identifying and labeling charts as specific to those providers need to be developed.

Tips for Enhancing the Feasibility of Medical Chart Reviews:

- **Develop standardized methods for how charts are identified, audited and findings reported**
 - These instructions, often called “medical chart abstraction tools” are central to obtaining valid and useable information.
 - The terms and instructions in the tools need to be clearly defined, easy to understand, and easy to complete.
 - It is often valuable to pilot test a medical chart abstraction tool with one or more persons who be responsible for conducting the chart audit.
- **Build off the medical chart abstraction tools developed by ABCD II Consortium States**
 - Don’t re-create the wheel! Build off the tools and lessons from the ABCD II Consortium States provided in the *Measuring and Evaluating Development Services: Strategies and Lessons from the ABCD II Consortium States* located at: http://www.nashp.org/Files/Measuring_Dev_Ser_ABCDII.pdf
 - In particular, review **pages 17-19** of the report highlighting the key issues and lessons gathered in using the medical chart and Appendices **B and C** which provide examples of medical chart abstraction tools used in **Utah, Iowa**.
- **Require the screening tool to be in the chart.**
 - If feasible and possible, requiring providers to insert the completed tool in the chart makes chart review much easier.
 - Again, it is important to pilot test this approach to ensure that providers are actually inserting the tools into the chart.
- **If possible, develop methods for auditing the charts for additional information beyond screening.**
 - Maximize the time and effort being put into training staff to conduct medical chart audits.
 - Identify other potential evaluation measures that can be collected in the chart.
 - Identify discrete aspects of care for which there is valid and reliable information in the chart and a clear numerator and denominator based on criteria easily identifiable in the chart. These aspects of care will need to be specific to the tool, type and level of risk identified and recommended follow-up steps.
 - For example, if all children who receive a specific score on the screening tool should be referred for specific services then data related to this aspect of care could be included in the medical chart.
 - Review the ABCD II Consortium strategies for measuring the percent of children referred based on medical chart reviews and described on pages 22-26 of the *Measuring and Evaluating Development Services: Strategies and Lessons from the ABCD II Consortium States* paper.
 - If specific steps are identified as needing to occur based on the screening tool results, develop chart-based checklist forms that guide providers to these resources/care processes.

- These forms can serve a dual purpose in providing readily available information and guidance to providers and can also be used for measurement purposes if implemented correctly.
 - An example of this type of form that was used in California to guide providers to community resources can be found in **Appendix E** of *Measuring and Evaluating Development Services: Strategies and Lessons from the ABCD II Consortium States* paper.
- **Periodically report the findings to the providers of the care being assessed AND to those assisting in the survey administration.**
 - Report the information in a way that is salient and relevant to the user.
 - Reporting information about the findings can guide improvements to the implementation AND increase understanding about the value and relevancy of the data which can enhance support for the survey administration process.
 - **If possible, identify existing medical chart review activities and “add on” this component**
 - Identify potential measurement activities that use medical chart review. Examples could include:
 - Assessment of **Early Periodic Screening, Diagnosis, and Treatment (EPSDT)** rates.
 - State performance measures evaluating the state quality strategy and activities.
 - Required performance measures of managed care organizations and other Medicaid providers.
 - Required measures evaluating performance improvement projects.
 - **Consider methods for reducing the costs of entering and analyzing the abstracted data**
 - Consider developing data entry forms for the medical chart data.
 - An example of this type of data entry form is the ACCESS forms developed in North Carolina to enter in data from the Ages and Stages Questionnaire and the Parents Evaluation of Developmental Status.