5/13/2013 DRAFT

IMPROVEMENT BRIEF
Tri-State Children's Health Improvement Consortium (T-CHIC)
Medical Home Priority #1:
Identification of Children and Youth With Special Health Care Needs

T-CHIC:

The Tri-state Children's Health Improvement Consortium (T-CHIC) is an alliance between the Medicaid/CHIP programs of Alaska, Oregon, and West Virginia formed with the goal of markedly improving children's health care quality. T-CHIC aims to drive continuous quality improvement in child health care by: 1) Improving children's health and health care quality measurement; 2) Integrating Health Information Technology (HIT) systems; and 3) Developing the best models of health care delivery for children and their families. Each participating state will learn what works best for improving children's health in their own state and across T-CHIC.

PURPOSE OF THIS BRIEF

- To provide a definition of Children and Youth with Special Health Care Needs (CYSHCN) that practices should use in operationalizing systems and strategies to identify CYSHCN.
- To provide an overview of strategies that practices can use to identify CYSHCN.
- To provide examples of innovative methods used by practices within the T-CHIC learning collaborative community to identify CYSHCN.

T-CHIC MEDICAL HOME PRIORITY

- The concept of medical home was originally developed to meet the needs of CYSHCN within primary care practices by enhancing providers' population management functions, including care coordination.
- In order to deliver effective care coordination, providers must first know the population in need of enhanced primary care services.
- Future federal legislation and requirements will obligate quality measures and improvement efforts be focused on CYSHCN. State (and therefore practices) will be required to **stratify quality data by CYSHCN status** In order to do this, **standardized methods** to identify this population will need to exist at the practice level Identification of CYSHCN will become a part of **Meaningful Use** and other data efforts in the future.
- Therefore, T-CHIC priority area for practices is the development of standardized, sustainable systems practices use to identify CYSHCN.

WHO ARE CHILDREN AND YOUTH WITH SPECIAL HEALTH CARE NEEDS (CYSHCN)?: A DEFINITION

*"Children with special health care needs are those who **have or are at-risk** for a chronic physical, developmental, behavioral, or emotional condition and who also **require health and related services** of a type or amount beyond that required by children generally." (1)*

This definition is NOT anchored to specific diagnoses or conditions, but is focused on children that experience specific ***consequences***. The reasons a condition-specific approach is NOT recommended are:

1. **Low prevalence of most childhood conditions:** Most chronic childhood conditions have a relatively low prevalence. This is inherently different from care for adults, where a handful of diagnoses make up the bulk of patients with complex health needs (such as diabetes, hypertension, and congestive heart failure).

2. **Lack of diagnoses in many CYSHCN:** Identification of CYSHCN by diagnosis can fail to identify children for which diagnoses have not yet been established.

3. **Diversity of CYSHCN:** Single condition monitoring provides an inadequate view of overall health, health needs and system performance for CYSHCN, who share many common needs and often have more than one condition. An estimated 40% of children with special health care needs have 2 or more conditions (4); these chronic conditions vary considerably in severity, degree of impairment and service needs. There can be as much variation among children within a diagnosis category as between (e.g. CP and asthma).

4. **Consequences occur exclusive of diagnoses:** Many children experience consequences long before they receive a diagnosis or the correct diagnosis, especially for children with conditions for which clear diagnostic criteria do not exist are not routinely applied, or with mental, behavioral or developmental problems.
    a. A functional status approach would not capture children who function well but need special services to *maintain* function.
    b. Further, family risk factors may mean that a patient or family have complex needs, although the patient doesn't have a specific diagnosis (such as parental mental health or substance abuse history).

Why Identify CYSHCN?

About **12% of children** have a chronic condition that requires increased use of services or that limits normal activity (2). These 12% of children account for **47% of the total health care costs** for children (3).

Care coordination for CYSHCN leads to better care:

- **Reduced ER visits by 45%** (5)
- **Decreased number of hospital days by 48%** (6)

Tracking CYSHCN allows for better patient flow:

- **Better distribution of practice resources such as appointment length, budget, and care coordination services.**

OVERVIEW OF METHODS PRACTICES CAN USE TO OPERATIONALIZE A CONSEQUENCES-BASED APPROACH TO IDENTIFY CYSHCN

In general, there are three processes that are recognized as potential methods for identifying CYSHCN. **No one method is perfect**. Therefore, highly-functioning medical homes use approaches that leverage the strengths of each of these methods:

1. Patient/parent report (for younger children) through the use of standardized and validated questions definition. The Child & Adolescent Health Measurement Initiative (**CAHMI**) has developed a reliable and valid set of screener questions to identify CYSHCN.
2. Identify patients by running a list of diagnostic / ICD-9 codes (See Appendix B)
3. Provider identification of complex health needs (provider "gestalt")

Each process has inherent strengths and weaknesses, and each method may capture a different cohort of CYSHCN. Non-condition specific, consequence-based approaches are thought to be the strongest and most thorough methodology for pediatrics, for the reasons outlined in the table below:

Figure 1. Children Identified by Using Different Approaches for Identifying CYSHCN

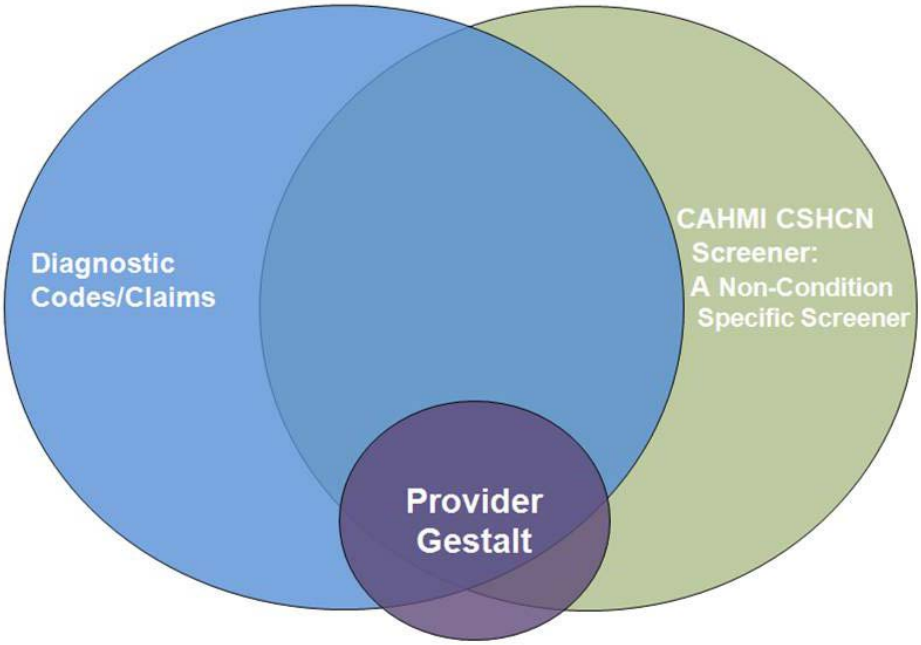

Table 1.0 Overview of Practice-Based Strategies to Identify CYSHCN

Strategy/ Approach	Benefits	Limitations	Learnings	Tools Practices Can Use
CAHMI Screener to Identify CYSHCN: Parent/Adolescent Completed Tool	Quick to complete Inclusive Cuts across diagnoses, including consequences that you may not be managing Learn things you may not have previously known about your patient	Increases paperwork distributed by practice Use of another screener – additional work and requires work flow adjustments for staff Requires provider time to review May take a long time before the entire practice population has completed the tool	Promotes a holistic view / assessment of the child's needs. Framing / patient education of why you are collecting the screener is important The screener is seen as most valuable when reviewed by the PCP and the patient together This approach implies universal screening and allows for the patient / family perspective to drive whether care coordination services are delivered.	See Appendix A for information about the CAHMI CYSHCN Screener and practice-level implementation considerations. www.cahmi.org
Diagnostic codes/claims	Useful when health system requires submission of specific ICD-9 codes to receive payment	Patients can lack a diagnosis, but still see consequences Requires consistent coding practices by all providers within a clinic. Highly dependent on the IT systems in place whether running lists is simple or complex. Also dependent on office support staff having the knowledge of how to run lists of diagnostic codes.	Most practices *(depending on the EMR and practice management system, and past experience of office support staff)* and states have found that running the full, comprehensive list to be extremely labor intensive (on the front-end) and limited to the quality of diagnosis coding. Coding must be consistent throughout the practice There are various methodologies in the literature, which can make for a difficult decision for practices	See Appendix B for lists of ICD-9 codes that can be used to identify CYSCHN.
Provider gestalt	Providers can quickly identify patients that would benefit most from care coordination services Useful when limited resources are available for care coordination or other services, as this method is likely to reveal only the highest utilizers	Patients can be overlooked Provider may not have known about all areas affecting health, particularly mental health problems (for which patients often self-refer), or family risk factors	Most likely to miss patients with behavioral health issues that have not been identified by the PCP Often used after hiring new care coordinators in order to ensure systems are in place before initiating a broader identification methodology	See Appendix C for examples standardized methods practices can use in asking provider to identify CYSHCN

PRACTICE VIGNETTES:

Spotlight from Oregon: Eight primary care practices in Oregon are participating in the *Enhancing Child Health in Oregon (ECHO)* Learning Collaborative. The first ECHO Learning Session focused on identification of CYSHCN. Below is a highlight of quality improvement interventions practices implemented to better identify CYSHCN.

Childhood Health Associates of Salem

Prior to TCHIC/ (ECHO) Childhood Health used ***provider gestalt*** to identify children with special health care needs. The criterion that was used to refer children to their care coordination services was:

1. The child had one or more specialists, or
2. The child used more than one community resources, or
3. The child had an obvious limitation

After Starting TCHIC/ECHO Childhood Health started to use the **(CAHMI) Screener**.
Childhood Health learned about the screener and **piloted** it with 2 providers; after quickly seeing the benefit of the additional children that the screener was identifying, the screener was **spread** to all 16 providers. The screener is distributed to parents of children aged 1-6 once per year, and every other year for kids over the age of 6 (on the even year) who come to the office for a well child visit. After completing the survey it is given to the Medical Assistant who scores the screener and inputs the score into the EMR – due to some limiting factors Childhood Health is only tallying the number of fields that are positive as a score for the CAHMI Screener. A positive field is when a child/parent answers "yes" to all 3 questions under one domain (See Appendix A for CAHMI Screener). The raw score (1-5) is then input into the EMR and the provider reviews the results with the patient/family during the visit. If a child has a raw score of three or above, the child is **automatically referred** to Childhood Health's care coordination services.

To track the CYSHCN population Childhood Health has started to add the **V-Code 72.85** to the patient's problem list. Patients are tagged with this V-Code if:

1. The child was already receiving Care Coordination services
2. The child's CAHMI Screener identified three or more positive fields
3. The child was identified by the Provider (Provider gestalt)

After successfully using the CAHMI Screener for a few months, Childhood Health sent a brochure about their care coordination services to all children that had a raw CAHMI Screener score of two or above. The brochure allowed parents/children to **"opt-in" to care coordination services** if they saw benefit. If patients opted in to the services, they were also tagged with the V72.85 code.

Childhood Health also has the capability to run the **ICD-9 Algorithm Developed by the University of Cincinnati Report (See Appendix B)**, but has yet to invest time in this method because they are seeing benefit in using the CAHMI Screener and provider gestalt. Based on initial feedback, running an ICD-9 report would be too time intensive and would also rely heavily on accurate coding by providers which may lead to some children being missed.

Hillsboro Pediatrics

Prior to TCHIC/ECHO Hillsboro Pediatrics was not actively identifying or tracking children with special health care needs. They had efforts focused on specific population (patients with ADHD, Asthma and who are obese), but nothing that cut across specific conditions.

After starting TCHIC/ECHO Hillsboro Pediatrics started to actively think about how they could identify their children and youth with special health care needs. It was determined that they would run a retrospective **ICD-9 report** for patients seen in the last two years to identify their sub-population. Once this identification method was determined, the ECHO team helped summarize a comprehensive list of ICD-9 codes (***over 125 number of specific codes)*** that had been documented in the literature and/or used by practices in the past to identify CYSHCN. (See Appendix B).

Hillsboro identified that for their first PDSA they would use this comprehensive list created by the ECHO team and run a report on their EMR. After attempting to run the report it was determined that the ICD-9 code list was problematic (due to internal coding issues, diagnosis often lived in open fields that were difficult to query for in their EMR) and their EMR's (Alteer) reporting capacity was inadequate. Moving forward, they decided that they would start identifying their most vulnerable population and focus on their Medicaid population. They ran a report on their EMR identifying all Medicaid patients and then completed a manual chart audit for special health care needs. They created an Excel spreadsheet of their children with special health care needs to help with tracking. After this PDSA it became apparent that this patient identification method was not sustainable without monthly manual reviews for Medicaid eligibility which is extremely time intensive. It was also noted that their EMR's reporting was unable to capture patients with Medicaid as a secondary insurance which increased the likelihood of children being missed in their identification process. Although this method was found to be problematic, Hillsboro decided to continue with this process to identify commercially insured patients with special health care needs. They had their referral coordinator team and telephone advice nurses do the manual chart audits for the entire commercially insured population and added the identified patients to

a Medicaid Excel spread sheet. After studying their outcomes they felt that **many children were missing** from their chart audits and decided to change their identification approach to include the CAHMI screener tool, which they hoped would improve and more accurately yield patients with special health care needs.

Pilot of the CAHMI Screener

Hillsboro piloted the CAHMI Screener for a day, by administering the survey to all patients that came into their Main Street Clinic. The surveys were distributed by the front office staff, and the medical assistants (MAs) collected the screeners for scoring and tallying. After studying this PDSA, the practice realized that in order for the screener to be used meaningfully, the provider/PCP had to review the screener's outcome with the patient. An additional PDSA cycle had the front office staff distribute the survey for the parents to complete in the waiting room, the MAs then collected the survey as they roomed the patient and scored the screener. The scored screener was then given to the provider who reviewed the results with the family. After discussing the results, the provider would write the pertinent diagnosis (not ICD-9) as it related to special health care needs on the screener to help with tracking in their excel spread sheet. The original CAHMI screeners were also scanned into the EMR and saved into the chart. To help with the identification process Hillsboro has decided that they will color code the patient's EMR banner to help with quick recognition and they are also considering adding the V-Code that Childhood Health uses to help run reports to identify this population.

Spotlight from West Virginia: Ten primary care sites are participating in the TCHIC project. Below is a highlight of a quality improvement intervention implemented to better identify children for care coordination needs.

Charleston Area Medical Center (CAMC): Children's Medicine Center

The Children's Medicine Center is located in CAMC's Women and Children's Hospital in Charleston, WV. The clinic is a pediatric resident teaching medical home offering educational opportunities to twenty seven pediatric & medical-pediatric residents. The clinic employs seven attending physicians that are partnered with the residents to accomplish about 11,000 patient visits/year. The clinic utilizes two types of scheduling: resident continuity clinic and CMC schedule (Open Access Schedule)

The Children's Medicine Center utilizes a variety of strategies to identify children that will benefit from care coordination efforts. Children are given the 5-2-1-0 Survey for all well child visits ages 2yrs+. The parents and children review the results and together determine one component of the 5-2-1-0 to improve. Children identified with a BMI in 85th percentile or above are assigned a V85 Diagnostic Code Series. Children in a foster care setting have identifying markers on their charts to indicate their status in the foster care setting. (Charts stamped "WVFC").

The practice staff, residents and physicians use motivational interviewing techniques to help support and assist with follow through on the selected goals. The children are scheduled for a 2 week follow-up to assess laboratory findings and review/reemphasize goals with the parent(s) and children. As ongoing support for continued improvement monthly follow-ups are scheduled to monitor weight loss and discuss barriers that might have kept the child and parents from meeting their goal.

Care Plans are developed for children and youth with asthma in order to support the children, parents(s) and the schools. The parent(s) and physician complete asthma questionnaires. Once the asthma action plan is completed and reviewed with the parent based on answers from the questionnaire the parent(s) are asked to signs a release of information so the action plan can be submitted to the school in order for the plan to be continued while the child is in the school/classroom. The Children's Medicine Center sends the action plan to the school nurse with clinic contact information attached. The action plan outlines goals for home as well as those necessary while the child is at school. The children are scheduled for routine and regular follow-up in the clinic to monitor symptoms and barriers/triggers that may be affecting their progress.

Spotlight from Alaska: Three primary care sites are participating in the TCHIC project. Below is a highlight of a quality improvement intervention implemented to better identify children and youth with special healthcare needs.

Peninsula Community Health Services of Alaska, Inc.

Peninsula Community Health Services of Alaska, Inc. (PCHS) is a Section 330 Community Health Center located Soldotna, Alaska and serving the central Kenai Peninsula. PCHS incorporates medical, behavioral health and administration in one building, and a dental clinic located at another site in Kenai. They have seven providers: three physicians, two full-time and one half-time; three nurse practitioners, one of whom is at eight hours weekly; and a physician assistant for a total of 5.7 full-time equivalent staff. In October of 2012 we setup a T-CHIC Care Team which consists of a Program Manager, a Program Coordinator, a Care Coordinator, a Case Manager, and the Primary Care Provider of the child. All of the above team members are involved in the ongoing care and support of each child or youth.

Prior to TCHIC, the clinic had no set procedure to screen or identify children with special health care needs. The clinic had no pediatric care coordination, but had one case manager for the entire patient population, who addressed needs as they were presented to her by providers, usually in time of crisis or great medical need. To identify children with special health care needs, a report could be run to look at several ICD-9 codes, but this report was inaccurate due to differences in coding and chart location. Another challenge faced by the clinic is the high turnover rate of providers due to the clinic serving as a training site and loan repayment program site.

After starting TCHIC, the clinic now has three care coordinators, two of whom hold roles of program manager and program coordinator. The third coordinator will be starting at the end of May. The CAHMI Screener and our internal Needs Assessment questionnaire were put into use in October 2012. All children birth through year twenty are screened when they have a clinic visit. If an in-person encounter cannot be completed due to illness or time constraint, patients' families are contacted through telephone if possible. Patients are tagged at next visit if screener has not been completed. An action item is set in our electronic health record (EHR) EClinical

Works to rescreen in one year. A Well Child Visit reminder is also made into an action item to fall within the month of the patient's birthday. The completed CAHMI Screener and Needs Assessment are then scanned into the EHR under a folder entitled Children's Health Improvement.

Currently underway is a procedure for CYSHCN identification in the EHR. Under "Global Alerts" in the clinical alert section in the EHR, a designation is set via color code. An orange-colored heading is used to designate children and youth with special health care needs. For special socio-economic needs and referrals to social service agencies, a sage green color setting is used. The clinic is discussing the use of additional color-coded chart headings and a V code to further note special needs in the chart.

An informal Plan-Do-Study-Act (PDSA) cycle was completed to implement and improve the clinic's Needs Assessment and method of engaging families. In March, after five months of use, the Needs Assessment was revised to remove or re-word questions deemed unnecessary or embarrassingly intrusive. The local population has a high rate of domestic violence, sub-standard housing, heating needs, transportation, and food concerns. Rather than ask specific questions such as "do you have a working flush toilet?" or "do you have enough food for the month?" questions were revised to be more general and cover service area needs such as home, transportation, and medical. Scripted introductions with patients now incorporate phrases such as "we ask the same questions to all families" and "we are trying to screen all children." Patients and their families are given explanation about the program and asked if they would like to participate.

Parents generally seem interested in brief screenings and like that the clinic is providing assistance options. The CAHMI screener has also helped the clinic to be more effective in planning for patient care and in knowing which services to provide if needed.

REFERENCES

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