I: Practice-based Risk Stratification in the Advanced Medical Home Program

As described in Advanced Medical Home (AMH) rollout documents in 2018-19,1 a key requirement for Tier 3 AMHs is ability to risk stratify all assigned Medicaid patients. The central concept behind this requirement is that practices will develop the ability to combine risk scores generated at the Prepaid Health Plan (PHP) level with their own clinical understanding of patients to produce a practice-wide view of risk and patient need (see Figure 1).

The rationale for risk stratification is to target care management to the right patients at the right time: not all patients require care management, while some patients who would benefit from care management may fall through the cracks without a systematic approach to identification. A clear and consistently implemented method of stratifying the patient panel will help AMH practice teams best allocate resources and improve health outcomes.

As part of the initial AMH Tier 3 attestation process, Tier 3 practices attested that they will:

- Use a consistent method to assign and adjust risk status for each assigned patient;
- Use a consistent method to combine risk scoring information received from PHPs with clinical information to score and stratify the patient panel;
- To the greatest extent possible, ensure that the method is consistent with the Department’s program policy of identifying “priority populations”2 for care management; and
- Ensure that the whole care team understands the basis of the practice’s risk scoring methodology.

Figure 1: AMH level Risk Stratification

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1 “Becoming certified as an Advanced Medical Home: A Manual for Primary Care Providers”, p. 12-18, released by the Department August 27, 2018. Additional information on risk stratification can be found in the following webinar presentations: AMH 101 Introduction to the Advanced Medical Home Program (slides 13-14), AMH 104 Roles and Responsibilities of Clinically Integrated Networks and Other Partners (slides 13-23), AMH 105 Introduction to Advanced Medical Home – AMH tier 3: Patient Identification and Assessment (slides 13-19).

2 The Department defines “priority populations” as: enrollees with Long Term Services and Supports (LTSS) needs; Adults and children with Special Health Care Needs; Individuals identified by the PHP as at Rising Risk; Individuals with high unmet resource needs; At-risk Children (0-5); High-Risk Pregnant Women; and other priority populations as determined by the PHP.
AMH Tier 3 practices have a range of options for accomplishing risk stratification. The Department is not specifying a particular tool or methodology that AMH practices must use, nor is the Department dictating how a practice may choose to work independently or in partnership with a Clinically Integrated Network (CIN) or other partner to accomplish risk stratification. While any risk stratification method must take both PHP-generated information and practice-generated clinical data into account, different approaches to risk stratification will fit different practices’ resources and needs.

To accomplish risk stratification successfully, a practice does not necessarily need to use population health or other purpose-built software, although some practices and CINs/other partners are likely to do so. The more important requirement is that the practice team has a single, agreed-upon method that is applied and used across the care team. Practices may opt to use different risk stratification methods for pediatric and adult populations, as long as there is a single risk stratification method consistent across each population.

Although AMH practices in North Carolina may already have experience risk stratifying their non-Medicaid populations, the direct requirement on practices to risk stratify is new within the Medicaid program. The Department recognizes that at managed care go live, AMH practices and CINs/other partners will be contracting with multiple Medicaid payers for the first time and that it will take time for practices and CINs/other partners to hone their approaches to managing care across multiple Medicaid PHP populations. In particular, different PHPs’ risk scoring methodologies, and consequently, the information they share with their contracting practices, will differ, although all must be aligned to the identification of “priority populations.”

Through the Advanced Medical Home Technical Advisory Group, educational webinars and other venues, the Department has received a number of requests from AMH practices to give examples of how AMH Tier 3 risk stratification could look in practice. Three examples are given below. Although the Department recognizes that the majority of AMH Tier 3 practices will with a CIN/other partner to perform care management, the first two examples show different ways that a practice could work alone to risk stratify, whereas the third example shows how a CIN and practice site could work together: these examples are illustrative only.

II: Risk Stratification Examples

Parkview Pediatrics

Parkview Pediatrics is an independent AMH Tier 3 pediatrics practice in a rural county of North Carolina. Parkview Pediatrics contracts directly with all PHPs. Parkview Pediatrics serves approximately 3,000 Medicaid patients and has one full-time Registered Nurse (RN) care manager on staff.

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3 “Clinically Integrated Networks and Other Partner Support of Advanced Medical Homes Care Management Data Needs” released by the Department February 26, 2019.

4 Historically, CCNC performed risk stratification (impactibility scoring) for all participating practice populations.

5 “RFP 30-13029-DHB Section V. Scope of Services”, p. 122 released by the Department August 9, 2018.
Risk Stratification approach: Practice-developed algorithm and clinical judgement

Parkview Pediatrics’ care management approach is oriented to prevention of conditions that can predict poor outcomes in later life (e.g. obesity) as well as common childhood conditions requiring ongoing management (e.g. asthma), and ensuring provision of appropriate screening and guidance on developmental stages.

To begin implementing risk stratification at the practice level, Parkview decides to pilot a “home grown” methodology under which clinicians score patients high, medium or low risk. The practice develops a methodology simple enough that clinicians are able to complete the scoring and document it within the Electronic Health Record (EHR) at annual visits or when significant new information arises about a patient.

The methodology asks clinicians to focus on two areas in scoring the patient – 1. Chronic disease; 2. Behavioral health – and lists factors in each area that should generally cause the clinician to score the patient medium or high risk. Rather than a strict points system, Parkview’s methodology lets clinicians review the list of factors and choose a risk category based on clinical judgment in many cases. Certain risk factors; however, automatically place a child in the high risk category. Examples of these factors are: having three or more emergency department (ED) visits in the last year; being a premature infant under 12 months old (adjusted age); having three or more prescription medications; showing any sign of suicidality; or having an unsafe home environment.

Parkview has begun to use its risk stratification methodology to guide assignment into care management. All patients flagged as high risk are assigned into care management. Parkview has implemented bi-weekly meetings involving all clinical staff and the care manager in order to review high and medium risk patients and make any adjustments to list of patients assigned to care management. As part of this assignment and review process, Parkview’s care manager reviews the PHP risk score and other available PHP-generated information (e.g. care needs screening) associated with each patient identified as medium or high risk, as an additional key factor in determining any care management approach. Parkview’s care team continues to make adjustments to the process as it gains experience.

Eastgate Family Practice

Eastgate Family Practice is an independent multi-site family practice in a suburban county of North Carolina. Like Parkview, Eastgate directly contracts with all PHPs. Eastgate serves approximately 6,000 Medicaid patients and has two full-time RN/Licensed Clinical Social Worker (LCSW) care managers.

Risk Stratification approach: Use and adapt publicly-available risk stratification tools

As a family practice, Eastgate’s aim is to adopt a care management approach that fits the different needs of both its pediatric and adult populations.
To begin implementing risk stratification at the practice level, Eastgate decides to incorporate patient risk scores received from PHPs together with clinical information pulled from the EHR to stratify patients according to the American Academy of Family Physicians’ (AAFP) risk stratification framework. The AAFP framework provides suggestions for different risk factors that practices can take into account in order to stratify patients into one of six levels of risk:

- Level 1 — lowest risk,
- Level 2 — low risk,
- Level 3 — moderate risk,
- Level 4 — moderately high risk,
- Level 5 — high risk, and
- Level 6 — catastrophic risk.

Eastgate has the stratification of all patients into one of these six levels facilitated by the patient risk scores which are generated by PHPs and transmitted to each AMH Tier 3 practice. Recognizing that each PHP in the region may calculate risk scores using different methods for their patients, the practice team initially works together to assign a range of PHP risk scores to each AAFP level. Clinicians and care managers may make adjustments to a patient’s level assignment at any time based on new diagnoses, social determinants information or other developments seen as part of the practice’s care of the patient. Patients stratified in the highest two levels (high risk and catastrophic risk) are prioritized for care management.

To embed the risk stratification and care management approach within the practice workflow, Eastgate has implemented daily morning huddles between care managers and clinicians at each site in order flag Level 5 and Level 6 patients coming in for an appointment that day and discuss what follow-up may be needed during the patient’s visit or care management encounter. Additionally, care managers review with physicians any patients who have been flagged with a hospitalization or ED visit using admissions, discharge, and transfer (ADT) data and discuss what follow-up that should be initiated by the care manager.

**Evergreen Medical Center**

Evergreen Medical Center is an adult Internal Medicine practice in an urban region of North Carolina. Unlike Parkview and Eastgate, Evergreen is affiliated with a health system which serves as its CIN. Evergreen serves approximately 1,000 Medicaid patients. Three RN/LCSW care managers are employed full time at the health system level and are shared between multiple practice sites.

**Risk Stratification approach: PHP claims data and ADT feeds combined with proprietary EHR-based tool**

In this example, analytic capabilities are available at the CIN level. Information transmitted from PHPs (beneficiary assignment data, encounter data, Care Needs Screening data and others) are combined with clinical data from the EHR and ADT feed information to create risk scoring and stratification that can be drilled down to Evergreen’s patient panel.

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6 https://www.aafp.org/practice-management/transformation/pcmh/key-functions/care-management.html. In the example, Eastgate is an AAFP member (full access to the tool is restricted to members).
The CIN/Other Partner analytics team first runs PHP, ADT and practice EHR data through a proprietary risk stratification algorithm customized by the CIN within the EHR. In order to provide targeted care management for the most prevalent health needs of Evergreen’s patient population, the CIN creates registries of high-risk patients by condition such as diabetes, hypertension and asthma. In segmenting the population in this way, the CIN is able to assign the most appropriate and qualified care manager to a patient (for example, a care manager may specialize in diabetes). The CIN also monitors ADT data feed in real time and alerts the right care manager to a high-risk patient’s ED visit or hospitalization to communicate with the ED/hospital, conduct same day or next day follow-up, schedule an aftercare appointment, review discharge instructions, conduct medication management review and conduct other key activities for patients in transition.

The CIN/Other Partner generates a monthly report of all patients identified as high-risk associated with Evergreen. Though the care managers are not embedded within the practice, as an AMH Tier 3 Evergreen has attested to ensuring care managers work closely with clinicians in a team-based approach to care for high-need patients. Evergreen and its CIN have opted to fulfill this requirement by setting up monthly meetings for care managers with Evergreen’s clinical team in order to flag patients who have newly been identified as high-risk and review updates for high-risk patients continuing care management.