

Lessons from the Field: Identifying Measurement Challenges and Successes

Prepared for the Agency for Healthcare Research and Quality by L&M Policy Research, LLC with guidance from the Pediatric Quality Measure Program (PQMP) Grantees

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List of Acronyms

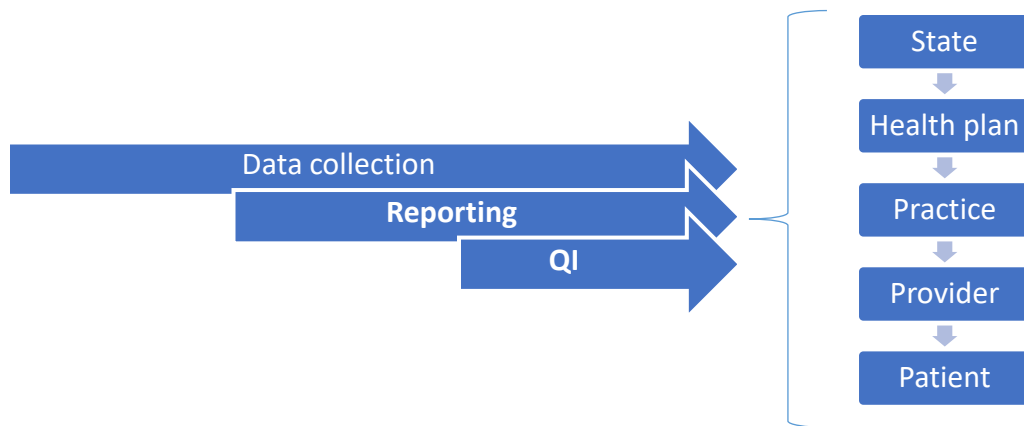
AHRQ	Agency for Healthcare Research and Quality
CheQ	University of Florida/Child Health Quality Partnership
KI	Key Informant
KII	Key Information Interviews
NCINQ II	National Committee for Quality Assurance/National Collaborative for Innovation in Quality Measurement: Implementing and Improving
PQMP	Pediatric Quality Measure Program
PQMP-LC	Pediatric Quality Measure Program Learning Collaborative
QI	Quality Improvement
Q-METRIC	University of Michigan/Quality Measurement, Evaluation, Testing, Review, and Implementation Consortium
RF	Research Foci

Lessons from the Field: Identifying Measurement Challenges and Successes

Introduction

This lesson from the field report examines one Research Foci (RF) central to the Pediatric Quality Measures Program (PQMP) grantees' work. This RF broadly focuses on the measurement challenges and successes experienced at each level (state, health plan, practice, provider and patient), as depicted in Figure 1.

Figure 1: Measurement Challenges and Successes



The specific question is:

- What measurement (e.g., data collection, reporting, QI) challenges and successes are identified at different levels (e.g., state, health plan, practice, provider, patient levels)?

In examining this question across two distinct data sources—literature reviews and key informant interviews (conducted by the PQMP Learning Collaborative)—a set of key considerations emerged that relate to measurement challenges and success at different levels. Each of these key considerations and supporting findings from the literature and key informants are discussed below.

Availability of accurate, timely, and complete data.

The availability of accurate, timely and complete data remains a key challenge to quality measurement and reporting at multiple levels. This is an issue particularly when using measures at different levels as data sources differ across levels, with health plans generally using claims data for measure construction and hospitals or other providers more often relying on medical records data. Some measures may also require data elements from more than one source. Linking data across diverse sources (e.g., medical records, vital statistics, claims) to create a complete patient record is a solution that supports sound

quality measurement; it is also difficult and may not be feasible due to infrastructure, lags, confidentiality, policy, or other limitations, creating further challenges for measurement and reporting.

According to the RAND Corporation’s evaluation of the uses of NQF-endorsed measures, “[t]he single most important factor cited as either facilitating or impeding the use of measures was the availability of data to construct performance measures” (Damberg et al., 2011, p.xv). While the majority of data used to measure quality come from health care claims submitted by providers, administrative claims are not intended to describe the non-billable care provided, to record and manage patient care, or capture how patients are affected by care received (Anthem Public Policy Institute, 2016). “Hybrid” data collection may sometimes be required, which refers to the combination of administrative data with information obtained from medical records (or patient experience surveys) and may generate more robust quality measures by increasing the number of component data elements (Berenson et al., 2013).

Key informants described successes and challenges in linking data from multiple sources for measurement and reporting. One key informant from a health plan noted successes in linking claims and medical records for measurement purposes but described challenges experienced in trying to link data on immunizations from state registries to claims data. A state medical director noted her state’s success in linking claims and vital statistics records, allowing construction of measures for mothers and infants.

Complexity of specifications within and across entities.

Complexity, lack of standardization, or inconsistency in specifications within and across entities and levels, as well as over time, is a factor impeding use of and reporting on quality measures. In order to calculate measures such that the results are comparable, entities need to have clear measure definitions, specifications and appropriate data or a clear understanding of when alternate data sources can be used.

The authors of the Anthem Public Policy Institute 2016 issue brief on quality measurement in Medicaid managed care wrote that some measures are simply not “amenable” to computer programming (Anthem Public Policy Institute, 2016). Technical factors such as clarity and complexity of measure specifications and software capabilities complicate measurement activities (Ireys et al., 2015). Due to the complexities of the specifications, state grantees in the CHIPRA Quality Demonstration Grant program needed to contact CMS’s technical assistance mailbox for queries on measure numerators, denominators, sampling methods, use of alternative data sources, coding systems, and continuous enrollment criteria (Christenson, 2017, p.190)

Based on challenges and complexity around the transition from ICD-9 to ICD-10 billing codes and using them for reporting, Caskey et al. (2014) found that 26 percent of all pediatric ICD-9-CM codes and 21 percent of pediatric patient visits were associated with “convoluted” ICD-10-CM codes. While the authors contend that the transition to ICD-10-CM should lead to an increased level of clinical detail included in each code, they wrote that the “convoluted” codes had the immediate potential to cause documentation inaccuracies, which could lead to financial loss from erroneous administrative data and billing errors as well as errors in surveillance. These changes could also

One of the key informants stressed the importance of clear and consistent measure specifications, noting that sometimes changes do not seem significant “ ... until you actually see how much of a change that little tweak on the specifications actually had on the measure results.”

lead to challenges in measuring performance over time, when measures rely on diagnostic codes that have changed.

Measure alignment across entities requiring reporting.

Alignment of measures across the different entities that require reporting (e.g., Medicaid, commercial payers, etc.) can improve measure uptake as well as performance reporting. Strategies that seek to streamline program requirements, align improvement objectives, and reduce operational/financial burden will enhance stakeholder buy-in and engagement in measurement activities.

A number of experts (Conway et al., 2013, Easter & Venkatesh, 2017, McGinnis et al., 2015) argue that alignment of measures encourages more coordinated quality improvement activities, reinforces the same set of incentives, and yields more consistent performance measurement. Additionally, Damberg et al. (2011) observed that “strong data infrastructure; provider trust in the measurement process and the evidence base of the measures; alignment of measures among reporting initiatives to minimize reporting burden; relevance to members, consumers, and providers; and provider training on how to extract the data” were key parameters by which quality measurement can be successfully undertaken (p.xv).

One of the key informants noted how her state was interested in alignment of measures across payers. She acknowledged that “there’ll be instances in which we have measures for the Medicaid population that may not transcend across our commercial enrollees,” but emphasized that their goal was alignment and ways to minimize data collection and reporting burden.

Damberg et al. (2011) refer to “measure fatigue” in which the preponderance of measures and lack of alignment across national, state, and regional programs impedes the use of measures. In their issue brief on quality measurement in Medicaid managed care, the Anthem Public Policy Institute reported evidence of further idiosyncrasy in state and regional quality measure sets, where analysts found over 500 measures in use in 48 public programs, where only 20 percent of measures were used in more than one measure set, and many were used in a single state.

Importance of understanding variation in care and data.

Understanding variation in care processes and harmonizing related data collection is important for accurate measurement for quality improvement, regardless of the measurement level (state, health plan, or provider). Variation in care processes can lead to variation in the way in which data elements are operationalized or recorded. To ensure measures are comparable, data collection must be clearly delineated so that measures represent the same underlying concepts.

One key informant described challenges faced by a managed care plan when developing a registry to identify hypertensive individuals. Blood pressure was not being clinically measured in a consistent manner which compromised data quality. To address this challenge, the plan worked with providers in one region to determine standardized procedures to encourage best practices for taking patients’ blood pressure to support consistent data capture for hypertensive individuals.

Berenson et al. (2013) described site-to-site variation in defining the medical term “shock” and how it may lead to biases in assessing performance in sepsis quality measures (Berenson et al., 2013). The authors noted

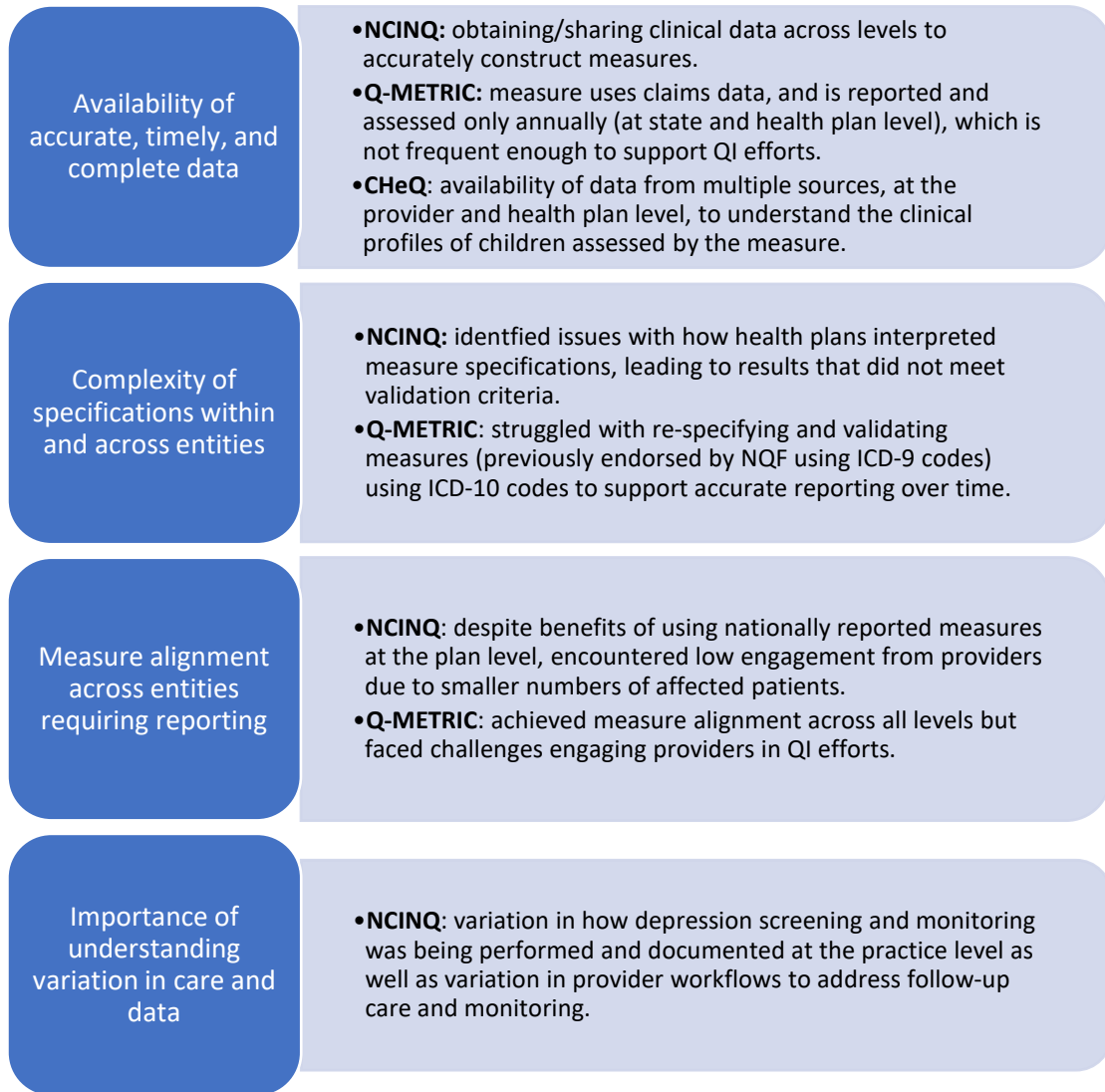
that this variability in the quality of data in medical records confounds efforts to appropriately profile and benchmark performance across sites.

The remainder of this *Lessons from the Field* provides examples of how the work of three grantees specifically relates to the considerations described above for one or more of their pediatric quality measures. For each key consideration, the grantees described: (1) the challenges they faced during implementation, (2) the approach(es) they took to address the challenges, and (3) their team's specific findings and implications for measure implementation.

Challenges to Measurement

The grantees identified a number of challenges related to measurement. While not all grantees faced the same challenges, there were a few commonalities across projects related to the key considerations. Two of the grantees' projects lacked access to the clinical data needed to support calculating a measure or to further understand patient characteristics in support of their QI efforts at the health plan or provider level. Despite measure alignment across reporting, several grantees struggled to engage providers in QI efforts. Grantees reported that providers either prioritized projects that impacted larger patient populations or participants generally lacked the resources to engage in QI efforts. Several examples are presented in Figure 2.

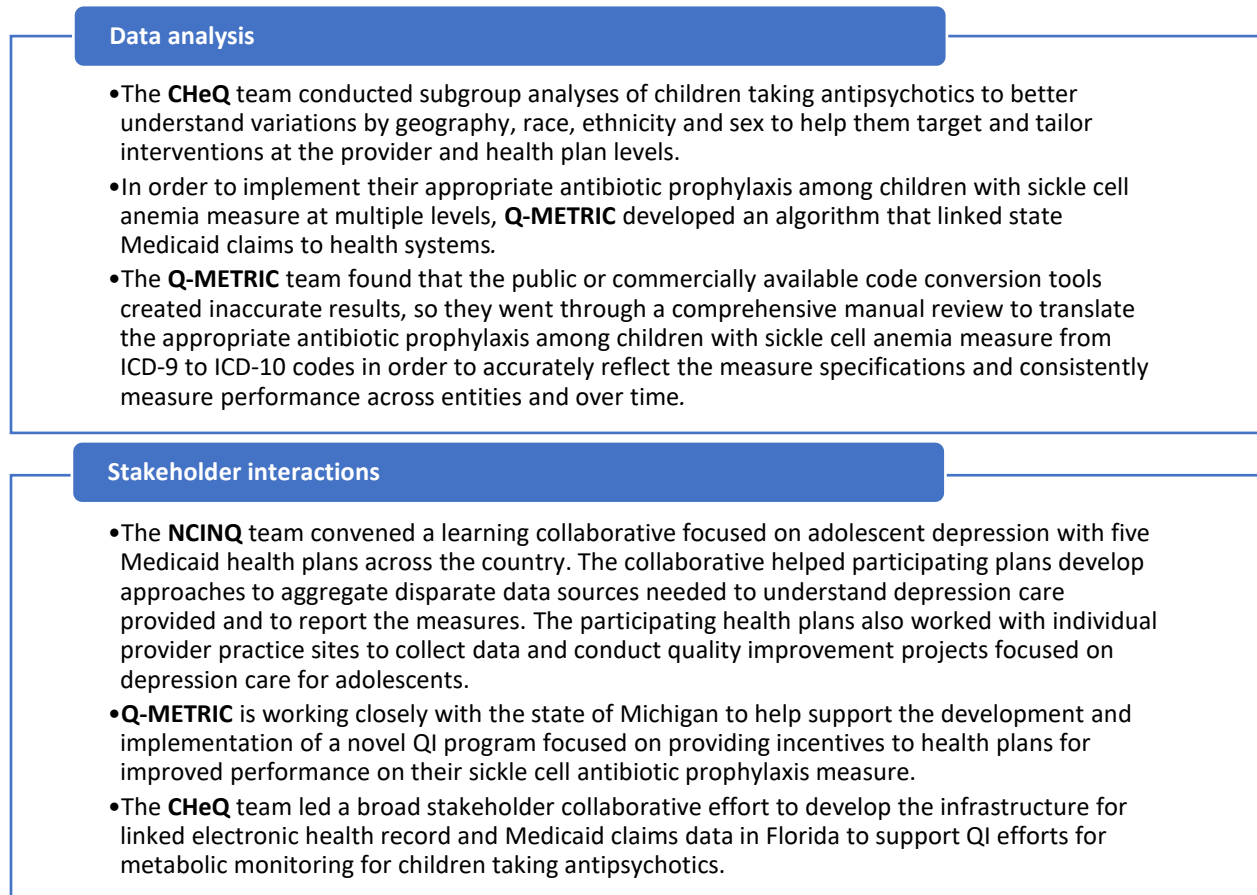
Figure 2. Examples of Grantee Measurement Challenges, by Key Consideration



Grantee Approaches

The grantees' approaches to addressing the key measurement challenges relied both on quantitative data analyses, as well as stakeholder engagement activities. Selected examples are shown in Figure 3.

Figure 3. Grantees used varied approaches to addressing measurement challenges



Grantee Key Findings and Implications

Based on their analytic and stakeholder activities, grantees produced findings for each of the key considerations about measurement challenges and successes. These findings expand the evidence base and strengthen the connection between measurement and improvement. Across levels, several grantees found that accurate measurement required using data from multiple sources, including use of data from medical records to increase timeliness of measures and enhance measurement. Grantees also recognized that careful specification of measures was critical to consistent measurement across entities and levels. More of the key findings and the implications for measurement and improvement efforts are presented in the following series of tables.

Figure 4: The availability of accurate, timely and complete data remains a key challenge to quality measurement and reporting at multiple levels, particularly when measures require data elements not available in claims data.

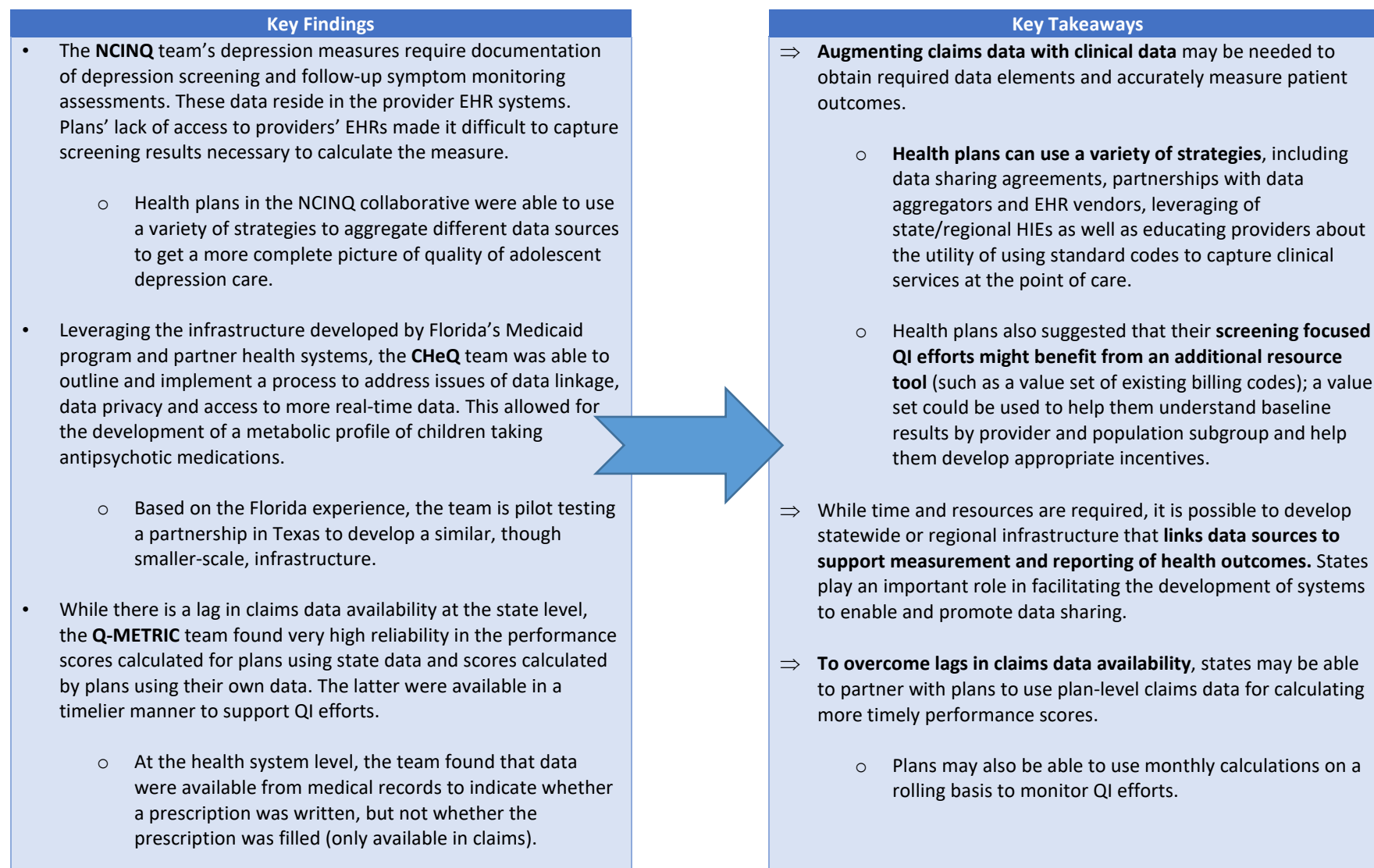


Figure 5: Complexity, lack of standardization, or inconsistency in specifications within and across entities and levels is a factor impeding use of and reporting on quality measures.

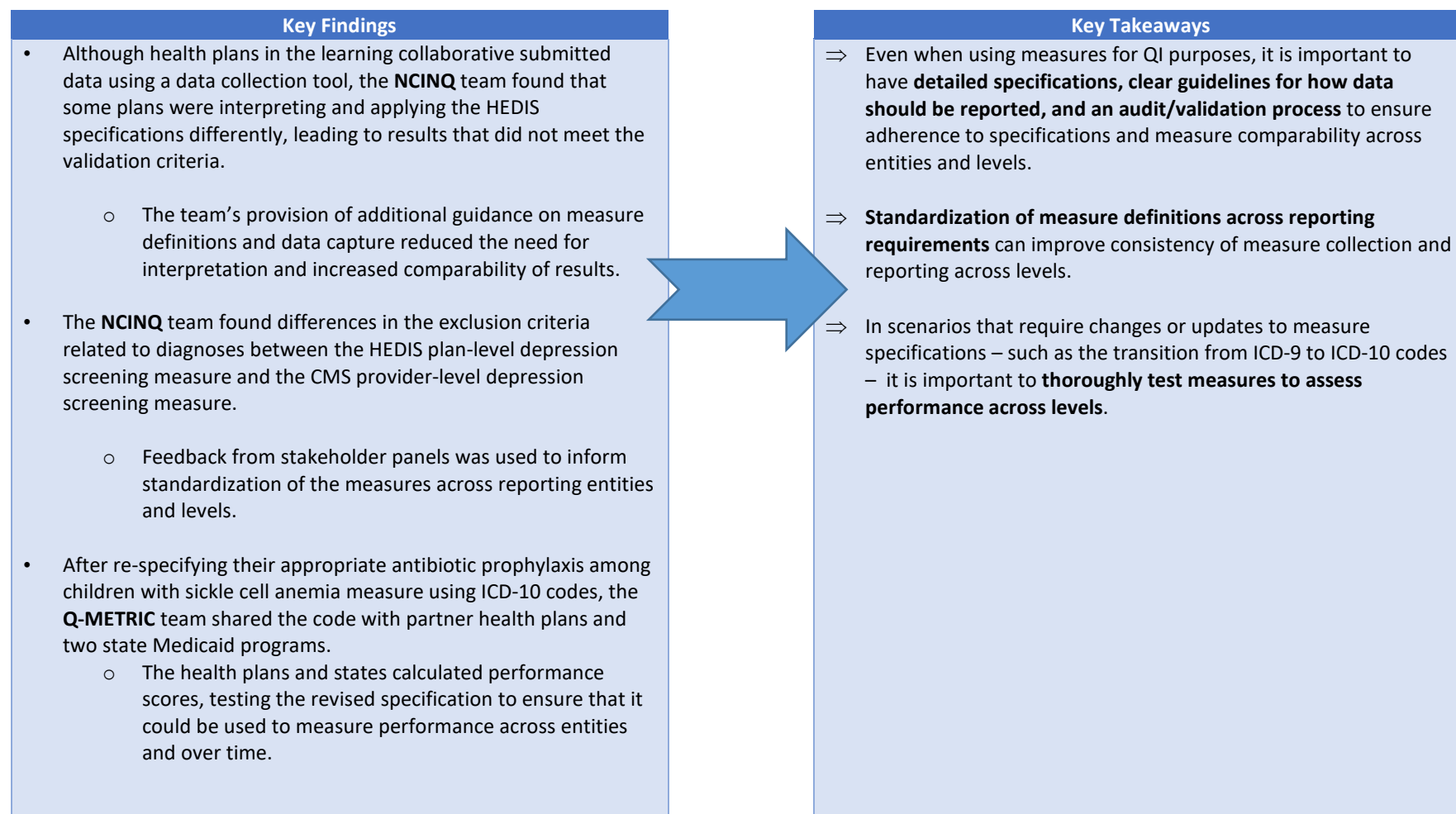


Figure 6: Alignment of measures across the different entities that require reporting (e.g., Medicaid, commercial payers, etc.) can improve measure uptake as well as performance reporting.

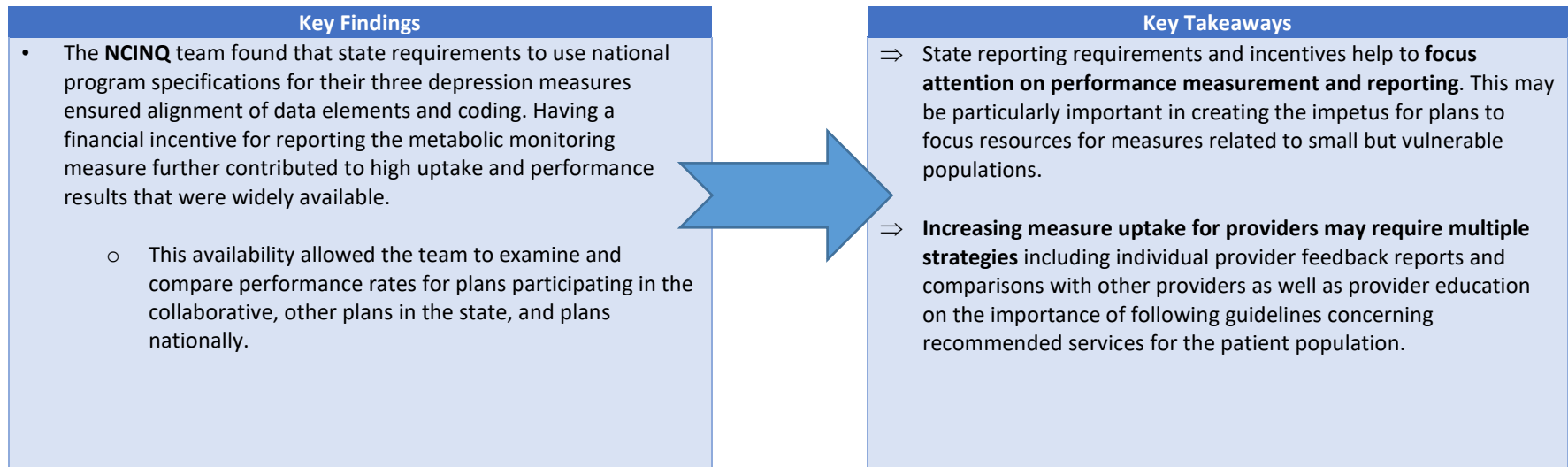
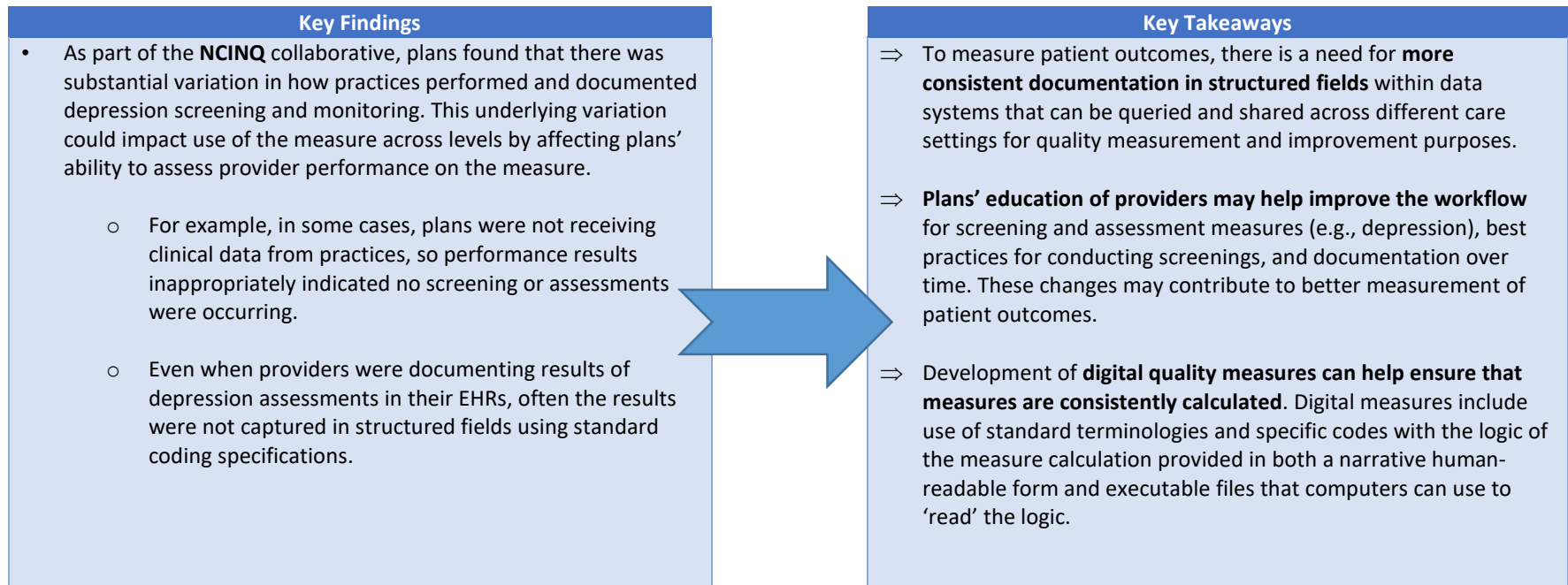


Figure 7: Understanding variation in care processes and harmonizing related data collection is important for accurate measurement for quality improvement.



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