CHECKLIST FOR ANALYZING PERFORMANCE MEASURE DATA[1]

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NATIONAL ASSOCIATION OF
Community Health Centers

ARE THE NUMBERS RIGHT? (IS THERE DATA INTEGRITY?)

Data Integrity Category	Definition	What to Look for
Verifiable	The same result can be generated from calculating the measure or numerator/denominator using different data sources.	☐ Is the measure result (e.g., BP control rate) the same from EHR registry vs. population management software? ☐ When you do a chart sample from the reported data, do the numbers in individual patient records match those reported?
Accurate/Reliable	Numerators and denominators are correct, and based on the measure specifications; consistent results are generated from the same reporting tool.	Documentation Issues ☐ Are data entered into proper EHR fields (e.g., are staff documenting systolic BP in the correct sequence or field vs. diastolic BP)? ☐ Are EHR data fields free of text elements that could nullify data (e.g., slash between systolic and diastolic BP readings is entered backwards or text is added to a numeric field in the EHR, resulting in a zero value) ☐ Have any numbers been transposed? ☐ Are data recorded properly (e.g., are BP readings being rounded up or down before being entered into the EHR)? ☐ Are tests being counted as completed only because there is text in a results field? If so, are results always entered or is other text documented in the results field that may falsely indicate a test completion?

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		Logic Issues
		☐ Are data appropriately limited to only cover sites, providers, and patients that are exposed to the QI interventions?
		☐ Is the report logic querying data from the proper EHR fields (e.g., is it accidentally extracting from the temperature field instead of the diastolic BP field)?
		☐ Are all eligible data elements being captured in the report logic (e.g., is the query omitting relevant ICD codes or people of certain ages, etc.)?
		☐ Is the date of a procedure based on the order date or the completion date (former might cause false positives if the ordered procedure wasn't completed)?
		☐ Are patients who "age out" of the measure specifications (e.g., become older than the age limit) or develop an exclusion properly excluded at the appropriate time?
		☐ Have pertinent codes (LOINC or ICD) changed (new ones added or old ones retired)?
		☐ Are patient records de-duplicated?'
		☐ Are the correct codes consistently associated with the test or diagnosis being measured (e.g., did mapping break due to a new EHR upgrade)?
		Face Validity Checks
		☐ Is there a logical relationship between proportions? E.g., the diagnosed hypertension cohort numerators (Stage 1, Stage 2, and controlled) should add up to the diagnosed cohort denominator. Also, the numerator for hypertension prevalence should be slightly larger than the denominator for BP control due to exclusions and length of diagnosis required for entry into the denominator.
		☐ Are results very similar for reports one day

		of the week vs. another (e.g., only small differences should be found from claims adjudicating or patients aging out, etc.)?
		☐ Are numerators/denominators relatively consistent over time? If not, is there is a logical explanation/confirmation of why they are changing over time (new site opened, new intervention implemented, etc.)?
Retrievable	Desired data elements are documented in the EHR in a format that is possible to query.	☐ Are data elements consistently documented in structured fields or using standardized free text so that they appear appropriately in query results (vs. inconsistent free text)? ☐ Are scanned patient documents/reports attached to orders so that they can be queried? ☐ Are critical data points (e.g., BP readings) documented in a telephone encounter or other place in the EHR that cannot be queried?
Complete	All data elements, including any repeat or re-analysis performed, are included.	☐ If a repeat measurement is taken (e.g. BP reading), is it entered into the reportable vitals field or into a free text field (where it might be retrieved by the measure query)? ☐ Do start dates and end dates (e.g., for the visit occurrence timeframe) align with the measure specifications? ☐ Are select sites, providers, or patients are missing from the data set?

WHAT DO THE NUMBERS MEAN? (WHAT FACTORS ARE INFLUENCING THE OBSERVED MEASURE IMPROVEMENT/DETERIORATION/STAGNATION?)

Drivers to Consider	What to Look for
Is the parameter or test being measured correctly?	☐ Are staff using appropriate techniques to measure key parameters (e.g., for BP: patient's arm is supported, BP cuff is the correct size, etc.)? ☐ Are patients prepared properly (e.g., for BP, patient has been allowed to rest for 5 minutes, has taken any prescribed BP medications, etc.)
Are patients failing the measure being seen for follow-up care?	☐ Are patients who should be receiving special attention to address health concerns related to not meeting the measure (e.g., increased cardiovascular risk from uncontrolled hypertension) being scheduled during check-out for a follow-up visit? Are the appointments scheduled but the patients miss them?
Are patients receiving evaluation and treatment that isn't reflected in the measure?	☐ Are there types of encounters that generate key data that aren't included in the measure (e.g., a patient's BP is taken during visit with a nurse or health educator that isn't included in the measure calculation that requires a provider visit)? ☐ Are patients measuring/recording key parameters in out-of-office settings that are thus not used in the measure (e.g. BP taken in the home or community monitoring)?
Are medication reconciliation/titration issues affecting measure?	☐ Has it been a long time since a patient's medications were reconciled or titrated (e.g., could they be taking another medication that is affecting the BP medication or does their BP medication type or dosage need adjusting)? ☐ Are some medications associated with higher levels of control compared to others?
Are medication adherence issues affecting measure?	☐ Are patients filling their prescriptions? ☐ Are patients running out of their prescription before coming in for an appointment (and thus, BP is never controlled at appointments)? ☐ Are prescriptions for polypills or are patients taking multiple medications? ☐ Are prescriptions for 90 days vs. 30 days (former can increase adherence)? ☐ Are prescriptions affordable for the patient? ☐ Do patients have prescription information in a language that both they and their caregiver (when applicable) understand?

Are patient care plans reliably established and monitored to optimize measure performance?	☐ Does the patient have an evidence-based care plan for the target (e.g., improving BP control)? ☐ Is the patient following the care plan? If not, are goals set for or by the patient (e.g. motivational interviewing)? Does the patient understand and perceive the plan as important to follow? ☐ Are some types of care plans (e.g., focused on exercise vs. nutrition, or stress reduction vs. smoking cessation) more successful than others in addressing target (e.g., lowering BP)?
Are there specific common factors among patients failing the measure?	☐ Are there more patients (e.g., with uncontrolled or undiagnosed HTN) associated with specific providers/care teams or types of providers? ☐ Are there trends in demographic factors (e.g., age, gender, race, ethnicity, location, etc.)? ☐ Are there trends in co-morbidities (e.g., depression, obesity, diabetes, behavioral health issues, HIV, etc.)? ☐ Are more patients failing the measure challenged by social determinants of health (transportation barriers, lack of insurance, lower education, food insecurity, etc.)? ☐ Are more patients (e.g., with poor BP control) just over the threshold for control or significantly out of control? ☐ Are more patients (e.g., with uncontrolled HTN) recently diagnosed (e.g., less than a year)?