Core Evaluation Measures for Monitoring
# Communicating Critical Test Results

Hospital teams participating in the Massachusetts Coalition for the Prevention of Medical Errors Communicating Critical Test Results Collaborative are tracking their performance using several key assessment measures as outlined below.

(1) Percent of Critical Tests Meeting Time Targets

Numerator: # of tests that are communicated and **acknowledged** within the target time period (e.g. 1 hour for "red" zone critical tests, 6-8 hours for "orange", 3 days for "yellow")
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Denominator: Total # of tests that meet the defined criteria as critical (target set that should be communicated and **acknowledged** within the specified time period)

Key: Track every outlier that does not meet the time targets you have set. Hospital teams have learned the most about their existing systems and failure modes using this strategy.
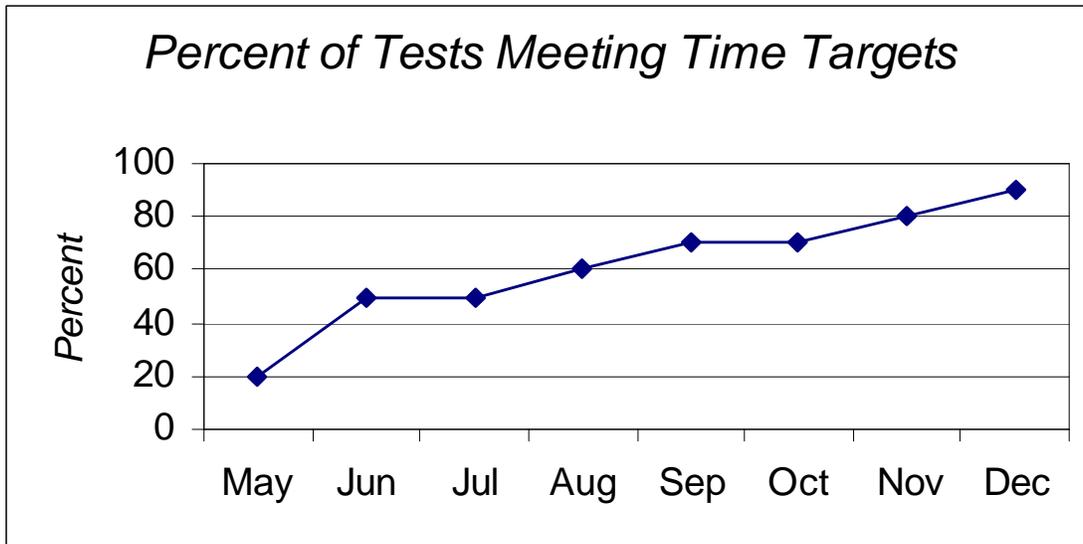

(2) Average time to acknowledgement by the provider who is responsible for clinical action (minutes)

Average Time to Acknowledgement (minutes)
Numerator: Sum of the time from when a critical test value is available to time receipt of that result by someone who can take action (acknowledged) for all critical test results in the sample
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Denominator: Total # of critical test results in the sample

Average Response Time

Minutes	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	95	93	87	77	73	50	43	46
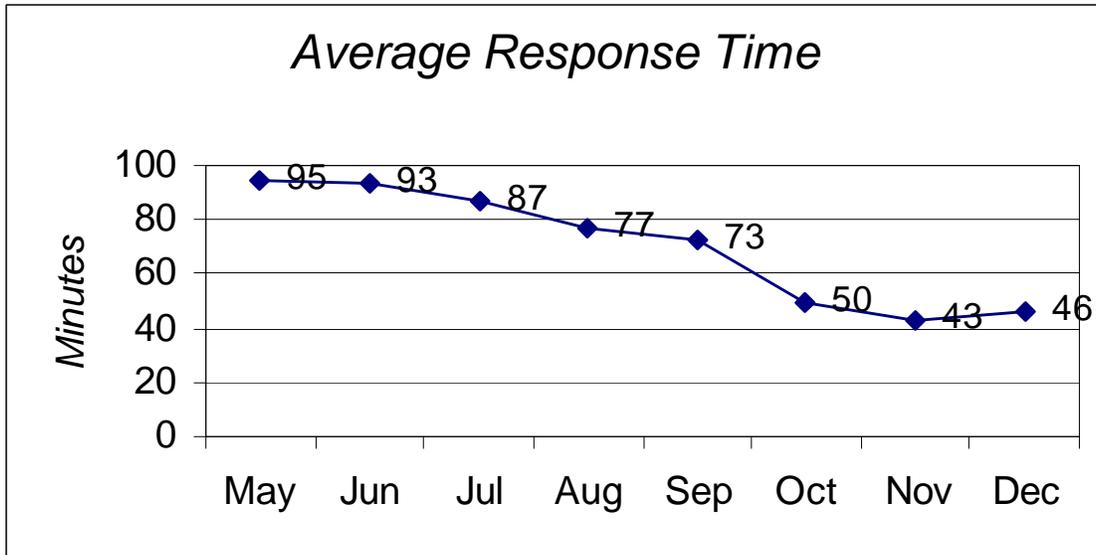
(3) Additional Measures for reliability
   a. Continue to track *__all outliers__*, doing a mini-root cause analysis on any instance when the
      time to acknowledgement exceeds a critical threshold; and,
   b. Complete a FMEA on the process of communicating critical test results from all diagnostic
      test centers within your institution.   This is especially valuable when the process is at a
      level of reliability that it shows all results in a sample of 20 tests were communicate
      within the targeted time range. (a "failure" rate less than 1 in 20)

Other Sub-Measures (Time for Specific Steps in the Process):
The data collection tracking sheets allows hospital teams to track the elapsed time between
various phases of the communication process to help in their identification of the source of any
communication breakdowns. For example:
- Time from value availability to initiating phone call to provider
- Time from initiating phone call to provider to reaching provider
- Time from clinical notification (acknowledgement) until treatment decision for the
  patient
- Total time from value to clinical action

Some other Process Measures:
- Median number of phone calls before reaching MD who acknowledges results (reported
  by service)
- Percent (number) of times "fail-safe" initiated for all calls of critical results
- % of charts with documentation of critical test value recorded
- % of charts with documentation of clinical action
- % of pages not answered by test type, e.g. hematology, chemistry