CAT-MH™
Frequently Asked Questions

What does CAT-MH™ stand for?

The CAT-MH™ stands for Computerized Adaptive Test (CAT), Mental Health (MH) and is a suite of computerized adaptive tests for the measurement of a wide variety of mental health constructs. Unlike traditional tests that fix the items and allow the precision of measurement to vary, CATs fix the precision of measurement and allow the items to vary. The net result is that we can dramatically increase precision by extracting items from a very large "bank" of items, completely eliminate the need for trained clinicians to administer the tests, and minimize respondent burden by adaptively administering a much smaller set of items targeted to the person's level of symptom severity. While CATs have been developed and used widely in educational measurement and in some areas of healthcare including behavioral health, the CAT-MH™ is unique in its ability to adaptively measure multidimensional constructs such as depression, anxiety, mania, substance abuse, and suicidality.

How do users access the CAT-MH™?

The CAT-MH™ is a fully HIPAA compliant web-based application. Using a cloud computing environment (Amazon Web Services) it is scalable for any population size and available on any internet capable device (smartphone, tablet, notepad or computer) either through cellular data connection, Wi-Fi, or direct Ethernet connection. The CAT-MH™ can be accessed in several ways including directly through any internet browser at http://www.cat-mh.com, or via an Application Programming Interface (API). The API allows an organization to have complete control of the test administration. Tests results can be returned to the user organization in real time and integrated into a database, medical record, or administrative record. Tests can be administered by a case worker in a face-to-face session or remotely via an e-mail prompt.

How are the results of the CAT-MH™ obtained? Who has access to them?

The results of the CAT-MH™ are available immediately in several ways.

- They are easily and securely available through our online portal where registered users can access them and fully reconstruct the interview questions, responses and results.
- They are available via text and e-mail and can be sent to multiple staff in the child welfare system.
- Excel files with results can be downloaded for routine integration into an administrative database.
- They can be directly integrated as soon as testing has been completed into an electronic record (medical, research or administrative) via our API.

During the webinar, TN mentioned the results go to regional clinicians, what if I don't have regional clinician in my state, who should the results go to?

The CAT-MH™ provides results and clinical guidance based on cutoffs (e.g. none, mild, moderate and severe depression) in the published literature. Using these thresholds, a child welfare organization can develop automatic treatment referral guidelines and alerts that can be implemented whether or not regional clinicians are available. In other words, because of the automatic severity categorization of treatment/referral guidelines, the CAT-MH™ results can go to non-clinicians (e.g. case workers, managers) who can initiate next steps along the process of care.

What tests are available with the CAT-MH™?

The CAT-MH™ currently includes adaptive tests for depression, anxiety, mania/hypomania, suicidality and substance abuse for adults, and perinatal versions of these tests, all in English and Spanish. The Youth-CAT-MH™ or YCAT-MH™ provides tests of depression, anxiety, mania/hypomania, ADHD, oppositional defiant disorder, conduct disorder, and suicidality, in children and adolescents down to age 7, both self-rated by the child and rated by the parent about the child. The child item bank has 2400 items (1200 for the child and 1200 for the parent), yet can be adaptively administered in an average of 7 minutes. The Y-CAT-MH™ is the product of a 5-year National Institute of Mental Health (NIMH) grant and is in the final stages of validation. The Y-CAT-MH™ will be available for routine use in the fall of 2018. Adult tests of PTSD and psychosis (both clinician rated and self-rated) are also in the final stages of development. All of our tests have been fully validated against structured clinical interviews and were published in peer-reviewed journals.

What if I want to give different tests to different clients? Do I have to give the same modules each time?

The CAT-MH™ can be administered in a number of different ways, ranging from selecting the specific tests to be administered at the time of administration or selecting a fixed set of adaptive tests for all children and adolescents within a child welfare system. Further customization for specific applications is available through Adaptive Testing Technologies.

How often do we need to repeat the CAT-MH™ with our population?

Because the CAT-MH™ does not administer the same questions on repeat administration, the tests can be repeatedly administered at any interval in time (daily, weekly, monthly, annually). This eliminates the risk of response bias produced by repeated administration of the same items on traditional fixed length tests. Test-retest reliability is higher for the CAT-MH™ (r=0.92) than traditional fixed length tests (r=0.80). Therefore, the CAT-MH™ can be repeated frequently to determine current symptoms and a diagnostic picture.

Is the CAT-MH™ valid for different cultures?

The cultural validity of the CAT-MH™ has been scientifically studied in Latino populations taking these tests in Spanish. Using a statistical technology called differential item functioning (DIF) we are able to determine if an item that is a good discriminator of high and low levels of depression, as an example, in a non-Latino population is also a good discriminator of high and low levels of depression severity in a Latino population. We have conducted such studies (paper in press) and have identified those items that exhibit cultural bias and removed them from the Spanish version of the CAT-MH™ tests.

Similar DIF studies have been conducted for emergency room applications, perinatal women, LGBTQ individuals, and incarcerated individuals.

Does the CAT-MH™ work with the developmentally delayed child?

The CAT-MH™ provides full audio test administration which overcomes many issues related to literacy. In the child welfare system most tests would be administered with a case worker present, so if there were issues regarding lack of understanding of a question, the case worker could help explain the meaning of the word or question. At this time, there are not guidelines related to intellectual disability diagnosis.

How do we obtain the CAT-MH™ and what does it cost?

The CAT-MH™ is licensed by Adaptive Testing Technologies, and regional or state-wide licenses can be obtained directly through them.   Setup costs are application-specific and depend on the amount of training required, customization of the application, and support for integration that is required. The costs of a single testing session is $5 (and includes any or all of the available tests in the CAT-MH™ suite of tests) or unlimited testing for a $25 per person per year subscription (subject to minimum volumes). Additional maintenance and technical support is also available at a cost that depends on the size of the child welfare organization. In the state of Tennessee, over 300 caseworkers across the state were trained and we created a ready-to-use infrastructure that is now in widespread use throughout the child welfare system in the state of Tennessee. The CAT-MH™ is also reimbursable through Medicaid and other insurance providers at the state level.

Is it possible to link the CAT-MH™ to our administrative data?

Historically, one of the main limitations of administrative data has been the lack of detailed information about the mental health status of young people both while in care and as a result of being in care. The CAT-MH™ when linked to administrative records solves this long-standing problem. So yes, it is possible to link the CAT-MH™ data to administrative records, like those maintained by the Center for State Child Welfare Data. This combined information provides an unprecedentedly powerful resource for treatment planning and service delivery.