



Outcome Measurement Resources in Tier® Workflow®

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Discussion

Outcome measurement is one of three functions of the Quality Management Module of TIER® Workflow System. This function provides organizations with a powerful and flexible methodology to establish outcome measurement projects for research and evaluation or compliance with accreditation requirements such as JCAHO's ORYX initiative. The outcome measurement function includes ready to use measurement scales based on existing clinical assessment forms from the Service Delivery Module. However, additional standardized clinical assessment or measurement tools can be inserted to meet specific requirements of your organization. In addition, proprietary measurement tools can be inserted such as the Beck Depression Scale, the CAFAS, Basis 32, BSI and similar scales provided that permission is obtained from the proprietary source. (A matrix to assist organizations with selection of standardized assessments for measurement of clinical outcomes is included with this article.) A copy of the face sheet for outcome measurement data entry form is included below:

The screenshot shows a software window titled "Quality Management Facesheet (New Folder)". The window has a menu bar with "File", "Edit", "Search", and "Object". Below the menu bar is a toolbar with icons for "Save", "Prev", "Next", "List", "Print", "Cut", "Copy", "Paste", and "Info". The main area is divided into two columns of input fields. The left column contains: "Project Name" (GAF Outcome Study), "Project Coordinator" (Carter, William J), "Start Date" (07/25/2002), and "Project Status" (Inactive). The right column contains: "Project Type" (DM), "Project No." (1190), and "End Date" (10/01/2002). Below these fields is a tabbed interface with tabs for "Project Management", "Outcome Measurement - Data", "Outcome Measurement - Reports", "Performance Monitoring", and "Report". The "Outcome Measurement - Data" tab is active, showing a "Data Collection" section with six assessment tool forms: "GAF", "Behavioral Health Screening", "CGAS", "Evaluation of Objectives Worksheet", "Life Skills Assessment", and "Patient Questionnaire". Each form has fields for "Patient Name" and "Date".

Outcome measurement projects should be carefully defined to address achievement of the organization’s service delivery philosophy, goals and objectives. Many organizations waste time and financial resources on outcome projects that have minimal “return on investment” to the organization. However, useful measurement projects can be developed to: support development of primary prevention programs; evaluate effectiveness of programs and services; demonstrate feasibility for expansion of programs or services; contribute to knowledge of the field; and satisfy requirements of major funding sources. Multiple data collection tools are included in the workflow modules that can be used for evaluation projects including clinical records and a variety of customer-oriented questionnaires.

This module also includes a methodology to formalize development of organizational goals and objectives. Each objective can be formalized using the form below:

The screenshot shows a software window titled "Organization Objectives (New Folder)". It features a menu bar with "File", "Edit", "Search", and "Object". Below the menu is a toolbar with icons for Save, Prev, Next, List, Print, Cut, Copy, Paste, and Info. The main form area contains the following fields and controls:

- Date Established:** A text box containing "07/25/2002".
- No.:** A text box containing "21".
- Objective:** A text box containing "Achieve a minimum score of 90 on JCAHO survey".
- Type:** Radio buttons for "Strategic", "Operational" (selected), and "Combination".
- Priority:** Radio buttons for "1", "2" (selected), "3", "4", and "5". Below these are labels "High", "Moderate", and "Low" corresponding to priorities 1, 2, and 3 respectively.
- Evaluation Criteria:** A section with two text boxes:
 - Benefit Criteria:** "Accreditation decision grid score Of 90"
 - Cost Criteria:** "Total cost including preparation and survey < \$35,000.00"
- Buttons:** "Save" and "Cancel" buttons are located at the top right of the form area.
- Footer:** A small "Date Established" label is visible at the bottom left of the window.

In turn, a separate evaluation worksheet form is provided to document evaluation of objectives according to predetermined time frames during the fiscal or calendar year. A worksheet is completed for each objective status review. In this manner, the evaluation methodology is a useful support tool for compliance with accreditation standards requiring that organizations demonstrate quantification and measurement of strategic or operational objectives. A sample of the evaluation worksheet is included on the next page

CONCLUSION

The outcome measurement function of the QM module is designed to help organizations formalize their research, program evaluation and organization evaluation activities. A wide array of outcome measurement projects can be established to accommodate internal and external needs. The outcome measurement function also includes related reports for each project. In turn, a Report Summary is included with the quality management module. The summary list includes: the report type, report time frame and report period for each project and report activity.

SUMMARY OF STANDARDIZED ASSESSMENTS FOR OUTCOME MEASUREMENT

TEST	APPLICATION			
	Target Population	Data Collection	Psychometric Properties	Strengths Vs. Limitations
Medical Outcome Scale (MOS-36)	<ul style="list-style-type: none"> General Population 	<ul style="list-style-type: none"> Self Administration Interview 	<ul style="list-style-type: none"> High Reliability (.80+) High Validity (90 - 90%) 	<ul style="list-style-type: none"> Widely Applicable Worldwide Practical Alternative to long-form MOS measures
Behavior and Symptom Identification Scale (Basis-32)	<ul style="list-style-type: none"> Ages 14+ 	<ul style="list-style-type: none"> Structured Interviews Self Administration Telephone interviews Mailed questionnaires 	<ul style="list-style-type: none"> Reliability (.89) Validity (good for inpatient) 	<ul style="list-style-type: none"> Very applicable Limited discriminant validity for 3 of 5 scales.
Global Assessment of Functioning (GAF)	<ul style="list-style-type: none"> All age groups 	<ul style="list-style-type: none"> Multiple interview methods 	<ul style="list-style-type: none"> Reliability ranges (.62 to .82) Validity is strong 	<ul style="list-style-type: none"> Widely used as global measure Adaptable Limits on combining LOF with severity
Children's Global Assessment Scale (CGAS)	<ul style="list-style-type: none"> Child and Adolescent 	<ul style="list-style-type: none"> Multiple Interview Methods 	<ul style="list-style-type: none"> Strong Reliability (.85) Strong Validity 	<ul style="list-style-type: none"> Flexible Scale Scale's Sensitivity to change needs further study
Symptom Checklist 90 Revised (SCL 90-R) and Brief Symptom Inventory (BSI)	<ul style="list-style-type: none"> Ages 13+ 	<ul style="list-style-type: none"> Self administration 	<ul style="list-style-type: none"> Reliability SCL-90R (.80 - 90) BSI (.68 - .91) Validity is strong 	<ul style="list-style-type: none"> Well researched and measured Brief and multidimensional Not a diagnostic tool Can't be used with ages <13.

TEST	APPLICATION			
	Target Population	Data Collection	Psychometric Properties	Strengths Vs. Limitations
Eating Disorder Inventory (EDI-2)	<ul style="list-style-type: none"> • Ages 11+ 	<ul style="list-style-type: none"> • Self report 	<ul style="list-style-type: none"> • Reliability (.83 - .92) • Strong validity 	<ul style="list-style-type: none"> • Easy to use • Solid Reputation • vulnerable to self report limitations
Child Behavior Checklist (CBCL)	<ul style="list-style-type: none"> • Children and adolescents 	<ul style="list-style-type: none"> • Self rated • Direct observation • Semi-structured interview • Parent rating 	<ul style="list-style-type: none"> • Reliability (.80's - .90's) • Strong validity 	<ul style="list-style-type: none"> • Predictive validity • Not sole means of assessment • Not sensitive to short term change.
Beck Depression Inventory (BDI)	<ul style="list-style-type: none"> • All age groups with clinically diagnosed depression 	<ul style="list-style-type: none"> • Self administered • Oral administered 	<ul style="list-style-type: none"> • Reliability (.86 for total scores) • Very strong validity 	<ul style="list-style-type: none"> • Very widely used • Easy to use • Responses can be faked • Not updated for DSM-IV
Brief Psychiatric Rating Scale (BPRS)	<ul style="list-style-type: none"> • all age groups 	<ul style="list-style-type: none"> • Interview with self report • Clinician based 	<ul style="list-style-type: none"> • Very strong reliability and validity 	<ul style="list-style-type: none"> • Multiple strengths • Takes practice to be proficient • May not be appropriate for outpatients with mild symptoms
Client Satisfaction Questionnaire (CSQ) and Service Satisfaction Scale (SSS-30)	<ul style="list-style-type: none"> • All age groups 	<ul style="list-style-type: none"> • Self report 	<ul style="list-style-type: none"> • Very high reliability (.80's - .90's) • Very strong validity for global measurement 	<ul style="list-style-type: none"> • Structure of care system may also strongly relate to initial and long term satisfaction • Need to improve control of covariates of satisfaction.

TEST	APPLICATION			
	Target Population	Data Collection	Psychometric Properties	Strengths Vs. Limitations
Addiction Severity Index (ASI)	<ul style="list-style-type: none"> • Adult 	<ul style="list-style-type: none"> • Semi-Structured Interview 	<ul style="list-style-type: none"> • Excellent Reliability and Validity 	<ul style="list-style-type: none"> • Widely used supports both process and outcome measurement • Can't be self administered • Not suitable for adolescents
Treatment Services Review (TSR)	<ul style="list-style-type: none"> • All populations 	<ul style="list-style-type: none"> • Interview 	<ul style="list-style-type: none"> • Very good reliability and validity 	<ul style="list-style-type: none"> • Broad scope • Does not measure quality of services only quantity and frequency
Life Skills Profile (LSP)	<ul style="list-style-type: none"> • Patients with schizophrenia 	<ul style="list-style-type: none"> • Staff administered scale • Interview 	<ul style="list-style-type: none"> • Very good reliability and validity 	<ul style="list-style-type: none"> • Focuses on behaviors rather than general domains • Also clearly worded in behavioral language • Only can be used with schizophrenia
Depression Outcomes Module (DOM)	<ul style="list-style-type: none"> • Adults with Depression 	<ul style="list-style-type: none"> • Self Administered 	<ul style="list-style-type: none"> • Excellent reliability and validity 	<ul style="list-style-type: none"> • Can identify a homogeneous group of patients and provide outcomes AATA to optimize treatment. • But in early stage of development as instrument
Substance Abuse Outcomes Module (SAOM)	<ul style="list-style-type: none"> • Adult 	<ul style="list-style-type: none"> • Self Administered 	<ul style="list-style-type: none"> • Very good reliability and validity 	<ul style="list-style-type: none"> • Measures key constructs to discern clinical improvement in groups of patients. • Not yet valid for dually diagnosed.

TEST	APPLICATION			
	Target Population	Data Collection	Psychometric Properties	Strengths Vs. Limitations
Family Burden Interview Schedule Short Form (FBS/SF)	<ul style="list-style-type: none"> Family caregivers of adults 	<ul style="list-style-type: none"> Interview 	<ul style="list-style-type: none"> Good reliability and validity 	<ul style="list-style-type: none"> Brief, easy to use multi-dimensional in scope and low respondent burden. However, several modules of long form are deleted.
Alcohol Use Scale (AUS)	<ul style="list-style-type: none"> Severe Mentally Ill 	<ul style="list-style-type: none"> Direct observations Interview 	<ul style="list-style-type: none"> Good reliability and validity 	<ul style="list-style-type: none"> Cover wide amount of clinical information. Brief sample formats. Not meant to be basis for treatment planning. Not yet tied to DSMIV
Quality of Life Interview (QOLI)	<ul style="list-style-type: none"> Severe and persistent mentally ill 	<ul style="list-style-type: none"> Structured interview 	<ul style="list-style-type: none"> Good reliability and validity 	<ul style="list-style-type: none"> Broad-based assessment Supports research Supports treatment planning Somewhat long and uses a large number of variables without an overall summary score