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Canadian Outcomes Research Institute

HOMES-Muttart Research Project

The Canadian Outcomes Research Institute
Outcome Model

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The Canadian Outcomes Institute Outcome Model

Deming (1993) suggests that feedback loops may be created so that stakeholders can give input on a service's mandate and its service delivery before the service occurs, while the service operates, and after the stakeholder receives evaluation information on the service's results. The Canadian Outcomes Institute (COI) model uses the continual circular process of constant quality improvement as described by Deming and others as an evaluation sequence. It uses a practical integrated design to increase the personnel acceptance and use of the model. Cyclical evaluation methods link agency service delivery evaluation to the business operations.

COI Program Evaluation Model: Cyclical Loops or Iterations

Human services can be redefined as intangible products divided into system requirements, program inputs, intervention processes, client outputs, and client impact (Ernst & Hiebert, 2002). These products are supported or maintained through supportive practices found within human service businesses, such as data aggregation and analysis, marketing or communicating results, seeking stakeholder feedback, and strategic planning. Through the acquisition of knowledge about and involvement in service redesign and resource allocation, program personnel are encouraged to adopt or inhibit specific human service practices for organizational operations.

Quality improvement loops are a main component in this model. These loops require information to be circulated through its cycles (or iterations). The resulting evaluation, communication, and feedback of program evaluation results to stakeholders and program personnel is used as stimuli to assist in determining recommendations for quality improvement. This empirically based feedback loop may eventually influence service redesign through the revision of service mandates and accompanying service products.

The first evaluation iteration aims at using stakeholder information and feedback to help collaboratively create an integrated program evaluation. A service delivery iteration uses the information resulting from the first phase of the evaluation to act as a tool to evaluate the effectiveness of an organization's services concurrently while the service operates its business procedures. The business impact iteration uses the results from an initial evaluation as stimuli for stakeholders to assess how services are valued and how they might be redesigned. A final service redesign iteration acts upon statistically-based information compiled by the stakeholders as stimuli for actual program redesign and delivery. Thus, one continuous iteration leads to stimuli for the following iteration to use within its own continuous cyclical operation. Practical technology to monitor these continuous quality improvement loops which incorporate all these concepts did not exist at the time when COI was created. Thus, the purpose of COI is to create, implement, and evaluate a practical, integrated, and multidimensional program evaluation model integrated within human services.

The smaller cycles or iterations can be linked together to produce a larger or macro cycle, a seemingly continuous improvement cycle. Thus, theoretical program logic models can feed into a larger human service delivery model and at the same time address the actual cyclical operation of providing services to clients. Because data entry is integrated into service delivery, the actual data entry regarding each client becomes the empirical basis for the program or outcome evaluation.

Multiple clients' data is aggregated to produce outcome evaluation reports, these reports are used as the stimuli for improvement, and improvement recommendations are built into the redesign of subsequent service delivery. The cycle then repeats itself continuously.

Outcome Terminology

The COI model is based upon terminology closely related to two other major models and then embedded into a continuous quality improvement framework. The first is an Input-Process-Output (IPO) Model and the second is a Program Logic Model. The COI model breaks the IPO model into smaller components so that outcome and program evaluation components are clearly differentiated and the components fit more easily into a program logic framework. Systems components refer to broad system wide variables and agency components refer to variables found with agency operations and service delivery. The following list of agency terms begins to describe some concepts associated to a basic IPO, logic, and improvement models.

Planning an Evaluation: Defining the Components of the Evaluation Plan

1. Defining Organizational and Project Variables

System Requirements: System requirements refer to the broad factors of service that are of primary interest to funders and program managers. A key feature about system requirements is that it is a prerequisite for service operation, often mandated by funding bodies. These components are usually built into evaluations due to demands prior to service delivery or at yearly intervals. System requirements do not relate to direct service resource application (inputs), outcome or effectiveness, nor does it refer to the processes that occur during a service. These components may be important to help determine adherence to service mandates, or evaluating impressions of service quality. Measurement of system requirements does not follow a pre and post format. Sometimes a monetary value can be associated with system requirements and inputs. The listing of inputs and system requirements by monetary value can be organized into a project or agency budget.

Agency Mandate, Vision, Goals, and Outcome Statements: Some important system requirements are the agency mandate and associated agency goals. The goals are the statement of what the organization would like to achieve; goals stated prior to their achievement are often termed outcome statements. These often help determine the type of services a client will achieve. An agency mandate is a statement of the unique role the organization has to work toward a particular set of goals or role it take to create a difference in social condition. The mandate answers the question "why does the agency exist?" and states the purpose of the organization. An organizational vision statement states how the world in which the organization operates would be different if the organization magically and immediately met all of goals. The vision is the ideal state to which the organizational mission is directed to meet. Agency goals, outcome statements, mission, and vision are sometimes used interchangeably. Although they are all actually quite different, they are all directed toward future or planned achievement.

Statement of Need: The statement of need is usually a problem statement or issue area the program or organization is designed to address. The statement of need is often directed toward a specific target group. The target group is a community of people or specific type or group of persons that the program is designed to provide services. The reach a program has is measured while the program runs or after the project is complete and is the number of members within the target group that the project actually provided services.

Broad Strategy & Service Type: One important system requirement is the broad strategy or type of service used by an organization. By defining the type of service (like individual counselling, secure treatment, or early intervention services), the broad strategies that will be used to address a need may be predefined. The service type defines a broad category of services that is operated by a number of programs or agencies. Often, specific community wide accreditation and outcome standards are associated to each service type.

Rationale: The rationale is an explanation of the evidence to suggest why broad strategies or service types will work. Research and evaluation analyses may be quoted as evidence to back up a claim that a type of service will work.

Duration of Service: A client is often mandated or planned to stay within a service type for specific periods of time, or constrained by funders to be limited to a service for specific times. In such cases, duration of service is a system requirement.

Outcomes Standards: Outcome standards are particular sets of outcome expectations by communities, funders, professional associations, accreditation bodies, and/or governmental bodies. Outcome standards are often associated to specific types of services. There are two main components of outcome standards that are important to address.

Format: The format of the outcome statement is related to how programs will be required to design the measurement of outcome. Pre to post, post only, sample sizes, etc. are all examples of parameters that can be described by the formative requirements of the outcome statement. Pre and post measurement of client functioning is often an outcome standard expectation. Consequently, practitioners may need to conduct an assessment of client functioning before and after service delivery (ie. This can happen prior to service within a service plan and after a service within a discharge report).

Content: The content of the outcome statement describes what will be measured. It is often the only descriptor that is paid attention when outcome standards are created. The content of the pre/post measurement is important to know so that the specific outcome standard one hopes to address is not only identified, but also related to service delivery and the attainment of client goals.

2. Pre Measures

The time point in which data is collected defines pre measures. All pre measures are collected prior to service delivery or at the very beginning of service delivery before much intervention can occur. Client data, such as test information, collected at an initial assessment, a community needs survey, and the data collected while creating service plans are all examples of when pre measurement can occur. Client or community inputs, client needs, and client goals can all be used as a pre measure.

Inputs: Inputs describe the specific resources a practitioner or agency has to work with, and include client related factors (client inputs) such as client reasons for service (needs and issues), client goals, and/or client strengths. Inputs can also be program related (program inputs), some examples include number of staff, number of volunteers, staff training, and staff skill level.

Needs Presented for Service: Client needs and issues are the problems faced by an individual at the time a particular service is accessed. Client needs or issues can be identified as one type of

treatment/ therapeutic area. Participant needs could be needs described by a community prior to service design and delivery.

Assessment Information: Other client related factors can be collected prior to service delivery using assessment information. Very commonly, such assessment information is collected using standardized tests. The profile data that result from such assessment can be used as sample group profiling or for outcome monitoring purposes. It is important to understand how such tests are constructed and for what purposes they were initially constructed. Some standardized assessments were not constructed for outcome monitoring and instead may measure concepts, such as diagnostic information, stable personality characteristics, or other information that is not necessarily useful for outcome monitoring.

Community Needs: In some cases a community can be surveyed to describe the needs, issues, and problems faced by a community. Community needs assessments are often used to help determine the type of services and interventions required for a community. Such assessments can be done at various intervals while an intervention within a community takes place to help determine the outcome or impact an intervention may be having on a community.

Goals and Outcome Statements: Client goals are the client's intended areas of personal attainment while he or she is involved in a particular service. Goals can be specific to personal development, a particular service, or related to treatment/therapeutic areas. Goals that are achieved become one of the outcomes of service. Client goals and client outcome statements are sometimes used interchangeably; they are both a statement of future or planned achievement.

3. Interim Measurement

If the measurement occurs while during service delivery, after intervention has begun and before intervention has ended, then the measurement is an interim measure. Multiple interim measures sequenced a regular intervals and compared over time is typically called a time series measurement. If programs create client progress reviews or reports, then the information contained within such reports can be used for interim measurement. Similarly, data collected for community reviews and assessments that occur during an intervention may also be used as interim measurement.

Intervention, Service Processes, and Activities: Intervention processes or activities are the client and practitioner interactions that occur during a service's operation or delivery.

Practitioner Processes and Activities: These are the ways or actions used by project personnel to achieve the specific goals of programs and clients. For example, various counselling strategies, teaching strategies, or other support strategies are examples of intervention processes. Processes can be broken into micro (small behaviors) components, such as "using overviews, praise, reflecting feelings, describing behaviors, or using set induction." Micro component processes can be grouped or sequenced together to create complex intervention strategies or skills, such as "descriptive praise, skill practice techniques, relaxation techniques, guided imagery, or cognitive restructuring." Manualized services and treatments demand that specific strategies are used in specific sequences to produce one common way to conduct a particular service. Over time, practitioners may learn to use or sequence intervention strategies to develop personal practitioner styles.

Client or Participant Processes and Activities: These are the ways or actions used by project participants, clients, or students directed toward achieving specific client goals and outcomes.

Some examples include in session practice, homework, or contracts to complete specific tasks. Another example occurs when community people are asked to complete specific volunteer work.

Fidelity: Fidelity can be measured by comparing planned processes and actual processes and determining the degree to which the processes were delivered as planned. This can be determined by identifying intervention processes before a service is delivered (pre), such as in manualized treatment, and then measuring these same intervention processes during or after service delivery (post) to determine the degree to which service providers delivered the service as planned.

4. Post and Follow-up Measures

The time point in which data is collected also defines post measures. All post measures are collected after service delivery or at the very end of service delivery after all intervention has occur. If post measurement occurs well after service has ended, such as 3 months or 5 years later, then this type of post measurement is a follow-up measurement; data for interim outcome and long term outcome and impact are collected at follow-up periods. Like interim measurement, multiple post measures sequenced a regular intervals and compared over time is typically called a time series measurement. If programs create client progress reviews or reports, then the information contained within such reports can be used for interim measurement. Similarly, data collected for community reviews and assessments that occur during an intervention may also be used as interim measurement.

Client data, such as test information, collected at a final assessment, a community survey, and the data collected at the final progress review are all examples of when post measurement can occur. Such data can be grouped into different types including output and outcome (short, intermediate/medium, and long-term/impact) information.

Outputs: System outputs refer to the volume of services provided or work accomplished by a program or service, aggregated after a service or intervention operates. System outputs are often related to system and funder requirements. They are often confused with outcomes of service. This most often occurs when outputs related to service provider (staff and program) inputs and system requirements are measured after a service is delivered and mislabeled outcomes. These types of outputs are more correctly termed system outputs and/or program outputs.

Duration of Service: When a client is not mandated or had not planned to stay within a service type for specific periods of time, but the duration of service use was simply measured and reported after service has been delivered, then duration of service is an output of service delivery.

Satisfaction. Client satisfaction surveys measure clients' perceptions of like/dislike or satisfaction/dissatisfaction with programs and personnel. Satisfaction surveys are not an outcome measure because they do not measure change in any client domain; they are better classified as a program output. Satisfaction surveys are often noted to have a positive bias and do not always vary in relation to client change. In addition, satisfaction surveys can be easily influenced by agency marketing and program suggestions so are not always a good measure of program output.

Outcomes: Outcomes are always based upon client or participant change information. Outcomes are the results attained by clients or participant while involved in particular services. They are difference activities made in the short, intermediate, and long-term. Outcomes are often separated into client learning and client impact. Client learning refers to the observable change in knowledge, attitude, and/or behaviour attained by clients in their lives. Learning typically occurs

over the short-term. Client impact refers to the effect client learning may have upon the originally presenting needs and issues, their socioeconomic situations, or their overall global functioning. Impact usually refers to the difference that has occurred either over an intermediate or long-term.

Short-term Outcomes: Short-term outcomes are best determined by taking client measurements before and after a service intervention (both pre and post measurement is required). This type of measurement helps to determine the degree of client change over time. Client outcomes can be aggregated together to produce program, service type, agency, or community outcomes.

Short-Term Learning: Client learning refers to the observable change in client areas of: behavior, emotions and feelings, knowledge, cognitive (thinking and self-talk) ability, skill development, interpersonal interactions, resource acquisition, physical/environmental structuring, and spiritual development.

Short-Term Goal Attainment Outcomes: Client goal attainment refers to the change associated with the types of service goals that were created within client service plans. Very often services have client service plans. Within these plans, program goal attainment can be reported by aggregating the mean ratings of goal attainment (pre to post) related to categories of goals.

Short-Term Progress: Client progress refers to the degree to which a client achieves particular sets of success indicators intended to be completed at the end of a service. The degree to which clients achieve all indicators of success can be used as a measure of overall progress. Often progress is measured only on a client-by-client basis.

Long-Term Impact: Client impact refers to the effect that client learning has upon clients' original needs and issues, their socio-economic situation, and/or their global functioning. Intermediate (mid-term) and long-term outcomes are best determined by taking client measurements before, after, and as a follow-up after a service intervention (pre, post, and follow-up measurement is required). This type of measurement helps to determine the degree of client impact over time. Client or participant impact can be aggregated together to produce program, service type, agency, or community outcomes. Although impact can be short-term, it more often refers to long-term impact of service delivery.

Issue Impact: This type of impact refers to change related to the types of referral issues and problems that were presented to professionals as reasons for service delivery. Some tests measure issue impact by reported the ratings of severity for client issues before and after service delivery.

5. Evaluation Design

All evaluations require a design that will incorporate and allow for information or data to be collected. Evaluations can be well planned and program logic models designed to exacting detail, but if no data collection system is created, then data for outcome monitoring and quality improvement monitoring will very likely not accumulate. Only through accumulation of data can enough evidence be created to decide upon how the data should inform improvement recommendations. Attention to evaluation design encourages and increases the probability of data collection. To create a good evaluation design, outcome indicators and measurement tools should be well defined and directed toward a client or participant sample that can give information.

Pre to Post Measurement and Design: A fundamental component of outcome design is the ability to measure client change by comparing client information at the end of a service delivery cycle to client information before the client received any services.

Pre Measures: Pre measures are measurements of client and/or program information taken before any or most of the intervention processes (or service) have been delivered to the client.

Post Measures: Post measures are measurements of client and/or program information taken immediately after intervention processes (or service) have been delivered to the client.

Follow-up Measures: Follow-up measures are measurements of client and/or program information taken months or years after intervention processes (or service) have been delivered to the client. Follow-up measures are a special type of post measures.

Interim Measures: Interim measures are measurements of client and/or program information taken after intervention processes (or service) have begun but are not completely delivered to the client. Interim measures may occur repeatedly over a long period of time. Monitoring interim measures repeatedly is often referred to as a time series design.

Indicators: Indicators are the evidence that specific measurements that will increase, decrease, or stay the same. An indicator will inform the degree to which an outcome has been achieved. They are concrete things that one can see or hear, they are evidence of change, or they are evidence of benefit. Indicators may be “countable numbers” or quantitative information. Indicators can also be qualitative, or open-ended statements from participants or clients. Indicators usually have words such as “increase in..., decrease in..., number of..., percentage of...” included in its statement.

Measurement Tools: Measurement tools are instruments used to collect information. Surveys, standardized tests, observation, opinion polls, and so on are all examples of measurement tools. A measurement tool will often be stated immediately after such statements as “increase in..., decrease in..., number of..., percentage of...” Tools that are developed specifically for programs are not always developed with reliability and validity concepts being addressed. Consequently, program surveys should be used cautiously and without generalizations to broader contexts.

Target Group and Sample Selection: It is often assumed that every participant or client needs to be surveyed to create an evaluation data set. This is not necessarily the case, different types of sample selection will allow for a subset of participants to be used for data collection. Some different types of sample selection include non-random, randomized, matched group, snow-ball, convenience group sampling. The most common method in evaluation is to use non-randomized convenience group sampling but this method does not control for threats to internal and external validity. A randomized sample with multiple comparison groups, including at least one control group, is a much better method but is often not possible due to ethical or practical considerations.

Baseline Comparisons: Most commonly, an increase or decrease in the measurement when compared to the baseline (often pre) measures will determine the degree to which an outcome has been achieved. The baseline is the measurement taken at the start of the intervention or a predetermined measurement that exists prior service delivery. Positive change would occur only in comparison to the baseline. For example, a change in test or rating scores may be a positive outcome; changes in scores such as from negative scores to positive scores, high severity to low severity scores, or from low goal attainment scores to high goal attainment scores are all examples of change in comparison to a baseline.

In some cases, the measure will change from one category to another. For example, a change in living situation may be a positive outcome such as from living on the street to living in a foster home or living in an abusive environment to living in a safe environment. In other cases, baselines may refer to norms for groups of clients. When normed baselines are used, then specific training regarding testing and assessment and specific commercial instruments are required.

Targets: Targets are future aims or levels of achievement/outcome identified prior to service delivery. In comparison to the baseline measures, targets are usually identified as larger or smaller. However, in the case that the target is to maintain or stay the same, then the baseline and target levels are the same.

5. Check/Study the Data: Program Evaluation Information Prepared as Feedback

When pre to post measurements of client achievement are collected, evaluators can put together a data set (or aggregate the data) and then conduct various analyses on the data to determine program or service effectiveness. The information can then be compiled together and prepared as feedback to funders, program personnel, boards, or the public. Large data analyses can be used to help determine best practices for various client problems or for various types of services.

6. Reflect upon the Data: Program Evaluation Information in a Context

The feedback resulting from the data analyses can be aggregated and used in a number of ways, or used differently, depending on the type of stakeholder that receives the information. A critical feature of the quality improvement cycle is a reflection of the information aggregated on to the context from which it arose and from the stakeholders who receive the information. Reflection allows the aggregate check or analysis to be relevant and meaningful. Upon reflection with stakeholders, the data may then be used for recommendations for program change or improvement.

7. Action: Program Evaluation Feedback feeding Recommendations for Change

The feedback or information that is compiled from an evaluation can be used for a number of purposes. It should be highlighted that depending on the motivation for using the information, there may be different consequences for the different purposes for using the information. For example, “accountability to funders” is often identified as a reason for compiling outcome information. However, aggregating data solely for accountability purposes has a number of drawbacks. It may lead people to “fudge” data or report skewed data sets to impress funders and demonstrate accountability or effectiveness when there is little evidence of effectiveness to show. A continuous quality improvement approach uses evaluative data as ongoing stimuli for improvement. In this case, data suggesting poor results is welcomed because it becomes the basis upon which a program, agency, or sector area can then create recommendations to improve itself. A continuous improvement approach also allows various stakeholders to compile recommendations for system or regional improvement.

8. Integrating Continuous Quality Improvement Cycles and Organizational Variables

The COI Model encourages the use of data collection and reporting within a cyclical and continual improvement context. However, for an agency to adopt such a model, then some organizational variables may require attention. A key feature of continuous improvement includes a focus on change directed toward purposeful and future-oriented action. It occurs within an open system that considers, and is responsive to, the needs of the community and with consultation with various client and stakeholder groups.

Continual ongoing change must be valued as necessary within the organization to ensure responsiveness to stakeholder groups. Balance and stability of the organizational system is reached by removing specific or disruptive types of variability from the organization to increase quality, and by removing general (overall programmatic) types of variability to increase improvement. Diversity and flexibility must be positively valued to ensure that timely responses can be made to implement improvement strategies. Ongoing learning within the organization must be valued to ensure that competently trained personnel will direct organizational processes, implement improvement strategies, and provide the best services to consumers.

The COI Model also acknowledges that simple monitoring methods are required for long-term adoption and use of improvement cycles. The Plan, Do, Check/Study, Reflect, Act (PDCA) quality improvement cycle provides a tool for continuous improvement planning to improve the service delivery. It can be as broadly or narrowly used as is required. Once the system is established and running, the cycle is continuous.

The cyclical starting point begins at the planning stage. Ideally, a plan can arise out of previously collected client-based information. The purpose of planning is to provide direction and recommendations for the upcoming time period. Planning from a continuous improvement perspective involves determining what the client wants and focused on improving services to better meet the needs of the services' stakeholders. It may require pre measurement of client data. The Do phase is the implementation phase. Here, pre to post data collection occurs and the activities or changes contained in the plan are put into effect. The Check or Study phase of the improvement cycle corresponds with measurement, data aggregation, and data analysis. Next some Reflection of data in comparison with specific contexts and against the judgment of stakeholder groups is required. It is designed to determine how well a service is doing (or determining the types of variability) in relation to the gains or desired results contained in the plan. The Act phase corresponds with correction, consolidation of gains, or further improvement. It uses feedback or results of the measurement phase to determine the direction of further action.

Continuous quality improvement promotes meaningful changes related to organizational performance goals. It is characterized by regular review and revision of service processes and client outcomes/results, administrative procedures, measurement methods and program activities based on review of performance data. A continuous cycle of setting improvement goals, conducting and monitoring intervention or services, evaluating performance and the impact of organizational change, then recommending and changing service and administrative methods is used to ensure continual improvement.

Outcome Evaluation Components: Summary

The components of the model can be put together within the quality improvement process to create an overall outcome model. The COI model breaks outcome and evaluation terminology down, then builds it back up into a cyclical framework. Pre to post measurement typically occurs within or by an agency. Components related to this pre to post measurement can be referred to as agency components. The checking and reflecting of data as well as the development of recommendations for further action typically occurs at a broader level and in association with external systems. For this reason, components related to these parts of the model can be referred to as system components.

System Components

Agency Components

**Recommendations
(Act Before
Service Delivery)**

**PRE Measures
(Plan Before
Service Delivery)**

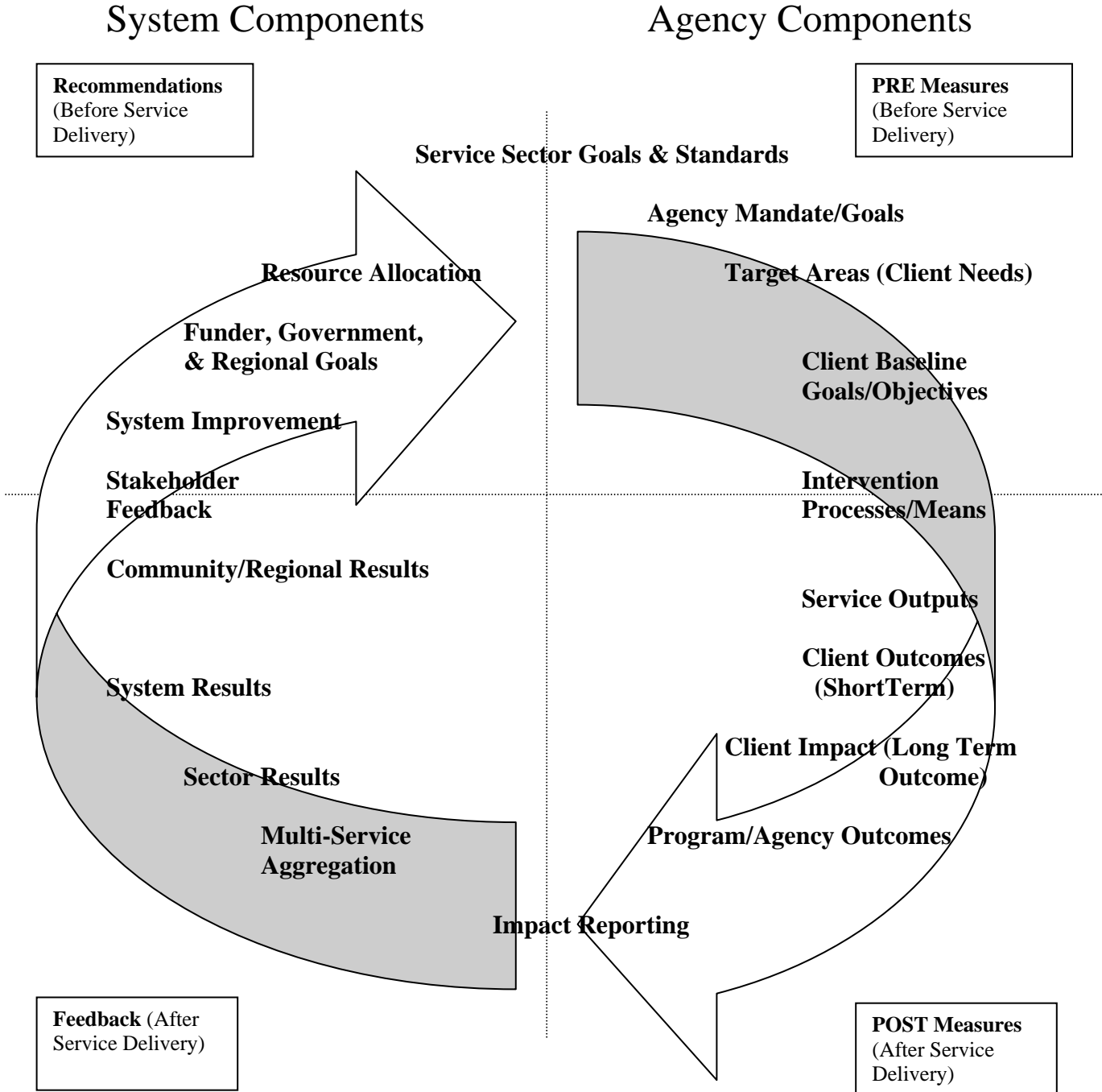
**Feedback
(Check & Reflect
After Service
Delivery and
Aggregation)**

**POST Measures
(Do During and
After Service
Delivery)**

The above basic and underlying framework can be built upon to add in the specific components of evaluation and service delivery. Evaluation and service delivery components should match so that the evaluation is relevant to the service being provided.

Outcome Model: Evaluation Components

A Program Logic Approach to Quality Improvement



Kelly Ernst, Ph.D., 1999

The list of evaluation components is listed in a circular and a sequential order to give one method to determine the differences among a variety of evaluation and informational needs. Evaluation components are directed toward helping agencies identify, monitor, and report outcome/ achievement for clients and programs. The COI system uses this model to manage its data and organize its form design. The model was developed within the context of accreditation requirements and an increasing trend among North American jurisdictions toward developing outcome oriented service delivery. The model separates system components from agency components, then orders the components from before, during, and after service delivery. The model focuses heavily on the collection and analysis of client data as the means to provide feedback to clients, practitioners, agencies, and system stakeholders. At any level of aggregation, feedback is used as a tool for ongoing quality improvement.

System Components	Agency Components
Before Services Occur	Pre
1. Stakeholder Feedback	6. Agency Mandate/Goals
2. Recommendations for System Improvement	7. Service Input Data Collection
3. Funder, Government and Regional Goals	8. Client Target Area Identification (Client Needs or Reasons for Service)
4. Resource Allocation	9. Client Goal/Objective Baselines
5. Service Sector Goals and Standards	10. Counsellor Tasks/Strategy Identification
	11. Client Task/Strategy Identification
	Process Measures (Intervention/Service Activities)
	12. Counsellor/Caregiver Tasks/Strategy Monitoring
	13. Client Task/Strategy Monitoring
	14. Progress Reporting (Periodic Client Goal and Needs Assessment)
After Services Occur	Post
20. Multi-Service Data Aggregation	15. Service Outputs (Program and Agency Deliverables)
21. Sector Results	16. Client Outcomes (Short Term: i.e. Progress, Learning, Goal, and Standard Attainment)
22. System Results	17. Client Impact (Long Term Outcomes ie Long term client change)
23. Community/Regional Results	18. Program/Agency Outcomes and Data Aggregation
24. Requesting Stakeholder Feedback	19. Impact Reporting

The above model can now be broken into measures corresponding to each component and integrated into a case management function so that data collection may occur while service delivery operates. Once integrated, every case management function becomes a data collection opportunity. The COI model uses this concept to base the development of data collection tools and web page design.

The following chart now uses the evaluation components and rearranges the components into a program logic model. Each part of the logic model requires attention to define the model completely within an organization. The logic model acts to plan the evaluation and/or plan the program activities. As long as the components are integrated into case management functions, definitions of each component can be turned into data collection opportunities.

Putting the Components Together: Creating a Program Logic Model

The basis of Program Logic Model approaches is that there is a logical flow among the components that comprise the program evaluation plan. Program Mandates flow into Program Areas, and Program Areas have Program Goals. Program Goals are often synonymous with Short-Term Outcomes and should have accompanying logic components such as Inputs, Activities, Indicators, and Measurements. Statements of mixed concepts are often termed Objectives.

Inputs	Activities	Outputs	Target Group	Outcome Statements			Indicator	Outcome Measurement		Design
Resources, Budget Lines	Activities, Tasks, and Strategies	Deliverables	Client Group, Sample, or Community	Short-Term	Intermediate Mid-Term (Impact)	Long-Term (Impact)	Success Indicator; Evidence of Success	Tests & Surveys: Standardized or Otherwise	Other Measures	Data Measurement Design
<p>Inputs are usually the resources that a program uses to implement activities directed toward goals/short-term outcomes.</p> <p>Budgets will list important inputs.</p> <p>Some inputs are required by funders or accountability/professional bodies, but are not funded (staff qualifications).</p> <p>Participants may contribute to program design and input allocation.</p> <p>An input in evaluation is complexity of measures. Keep Measurements few in number and as simple as possible</p>	<p>Program and Practitioner Activities Should be separately identified from Client or Participant Activities</p> <p>Note and look for the verbs: To encourage To promote To deliver To give To Attend</p> <p>Doing verbs suggest the concept is an activity.</p> <p>Other names for activities are strategies, tasks, procedures.</p> <p>Micro tasks can be grouped into strategies, that can be grouped again into procedures. Multiple procedures often comprise the entirety of an intervention.</p>	<p>Frequency Counts, Occurrences of...</p> <p>Occurrences of workshops, presentations, sessions, and so on are all examples of deliverables.</p> <p>A critical distinction here is that something can be delivered but no change necessarily occurs with participants or targeted groups/clients.</p> <p>Satisfaction Measures should go here.</p> <p>Satisfaction Measures Program Acceptance and Liking, not Client Change</p>	<p>The group of people being surveyed or tested for an evaluation.</p> <p>This is a group receiving service; it is not an employee group.</p> <p>Some different types of sample selection include non-random, randomized, matched group, snow-ball, convenience group sampling. The most common method in evaluation is to use non-randomized sampling. A randomized sample with multiple comparison groups, including at least one control group, is a much better method but not always possible.</p>	<p>Note and look for verbs such as: To have... To be...</p> <p>Outcome is PERSON, CLIENT, or PARTICIPANT CHANGE and identifies what clients or target groups have at the end of an intervention.</p> <p>Look for change in domains:</p> <ul style="list-style-type: none"> • Knowledge • Behaviour • Cognition • Affect • Social Networks • Characteristics • Resources • Etc. <p>A change occurs from pre to post intervention with the immediate target group or clients.</p>	<p>All outcome Statements at any level should logically flow with one another</p> <p>Short-term outcome is the immediate client change visible right at the end of an intervention; it is the easiest outcome to measure and programs have the greatest control over this change.</p> <p>Intermediate outcome is often the change one would observe after the end of the service and directed toward long-term client change.</p> <p>Sometimes change is referred to the broader community that has contact with the immediate target group.</p>	<p>All Outcome Statements can eventually be boiled-down, or be measured, Pre to Post at a Person or CLIENT level, then aggregated at broader levels.</p> <p>Often Long-term outcomes are aggregates of person by person measurements.</p> <p>Long-Term Outcome is sometime referred to as Client Impact</p> <p>Impact or Long-Term Outcome is very often measured at follow-up periods, or with longitudinal time series analyses. Programs have the least control over long-term client change. Sometimes change is referred to in the Broader Society.</p>	<p>Note and Look for Words indicating:</p> <ul style="list-style-type: none"> • Increase • Decrease • Improve • Number of... • Percent • Ratio of ... <p>Indicators show how one knows an outcome has been reached, usually with a focus on change from a baseline status.</p> <p>Indicators can be for Short-Term, Intermediate, or Long-Term Outcomes. In each case the types of indicators may change.</p>	<p>Program Constructed Measures or Program Surveys are often not reliable nor valid measures of outcome and should be used with caution.</p> <p>Standardized tests are great when resources and training allow for these tests. Many agencies do not have the trained personnel, nor resources to use such instruments.</p> <p>Tests used to develop client clinical profiles are often poor outcome measures, but great for stable diagnostic purposes.</p>	<p>Very Commonly Outcome and Process are mixed together, all measures should be reviewed to ensure the two are not mixed.</p> <p>Counts of change in client characteristics and status are common here but still require a Pre Measure.</p> <p>Money used as a measure is usually a measure of cost effectiveness, not client change. Measures of wealth are an exception.</p> <p>Community change usually still requires measurement of people variables or the environment associated to people regardless of whether or not they received intervention.</p>	<p>Collection Method</p> <ul style="list-style-type: none"> • Pre Only • Post Only • Pre to Post • Time Series • Follow-Up <p>Sample Selection</p> <ul style="list-style-type: none"> • Non-Random • Randomized • Matched Group • Snow-Ball • Convenience <p>Independent Variables</p> <ul style="list-style-type: none"> • Groups • Demographic • Programs • Service Types • Area <p>Controls</p> <ul style="list-style-type: none"> • Internal • External

Integrating Pre-Post Data Collection into Case Management

Measure	Case Management Function	Data Collection Opportunity
PRE (Prior to Service)	1. Assess Client Needs	a) Reasons for Service & their Characteristics (i.e. Severity)
		b) Personal Problems and Issues & their Characteristics (i.e. Severity)
		c) Clinical Problems & their Characteristics (i.e. Severity)
	2. Assess how to Address the Needs by ... Defining Specific Client/Service Goals to Achieve	a) Definition of Goals & their Characteristics (i.e. Intensity)
b) Definition of Success		
PROCESSES	3. What are the Client-Service Provider Activities ?	a) Planned Service Provider Strategies
		b) Planned Client Strategies
POST (After Service)	1. Re-Assess the Degree to which Client Needs were Addressed	a) Reasons for Service & their NEW Characteristics (i.e. Severity)
		b) Personal Problems and Issues & their NEW Characteristics (i.e. Severity)
		c) Clinical Problems & their NEW Characteristics (i.e. Severity)
	3. Re-Assess the Degree to which Client Goals have been Achieved	a) Definition of Goals & their NEW Characteristics (i.e. Intensity)
		b) Degree Success Attained
PROCESS FIDELITY	To what Degree were the Client-Service Provider Activities provided as planned?	a) Degree Service Provider Strategies Used
		b) Degree Client Strategies Used

Aggregating Data after Service Delivery

Once data collection is embedded into program and agency design, then ongoing aggregation of data can occur at regular intervals. Aggregation in this model always occurs using clients that have been discharged from service or at service completion periods. Even though data aggregation occurs at “end” or service completion times, ongoing data collection always occur while services operate. This results in the potential for regular aggregation of data throughout the year for regular review and auditing.

It is a mistake to think that aggregation and review only occurs at the end of a fiscal year. An “End of Service” data collection mindset invites one-time outcome data collection and reporting and little use of data for ongoing improvement. Such data collection is not necessarily the cheapest, nor the most efficient, way of collecting data. Integrated data collection is often cheaper, more efficient, and has the potential to be the most relevant way to collect outcome data. Integrated data collection occurs when personnel collect outcome data while service delivery occurs. The COI system is based upon an integrated data collection model.

Levels of Aggregation

Program Level Data Aggregation: To review data, it must be aggregated using various variables to group the data. Program or agency grouped outcomes data can only be determined by collecting information on a person by person or client by client basis, then aggregating together (putting or adding together) the client data into one data set for analysis. Analysis could be the comparisons of pre to post means, percentages of changes over time within one category to another, or comparison of information from multiple programs or agencies.

Logically Linking Outcomes to Standards: Outcome statements are logically linked to one another. Data can be grouped by outcome standards. Outcome standards are typically developed in collaboration with program participants; program/agency personnel; and government, funders, and/or professional bodies. Outcome standards are usually statements of typical or common types of outcomes that specific service types (sectors of service) can achieve, and/or are contracted to achieve. These Outcome standards are usually linked to regional, provincial/state, or even national goal statements at a broader level. Outcome standards are also linked to relevant program/agency outcome or mandate statements at a more specific level; and they are consistent with client outcomes that are attainable within program/agency services. For each type of service area, or sector, a number of standard statements commonly exist. Thus, data can be grouped by program, and subsets of program data can be used to address outcome standard requirements.

From Aggregation to Logic Models

Once aggregation begins to occur then the data summaries can be connected to specific areas identified within logic models. Measurements taken at different aggregate levels can be directed or theoretically linked to various components of the logic model that describe attainment in particular areas. These components are often called indicators. Indicators typically describe how measurements should act to determine the degree to which outcome statements have been met. Aggregated COI measurements can be grouped in various ways (total scores, profile scores, etc.) to determine how program measurements are acting. Pre to post groupings of COI measures can thus be used as program and outcome indicators.

Using Theoretical Program Logic and COI Models

A program logic model is a theoretical model. It is not a data collection procedure. But, logic models incorporate outcome monitoring into its theoretical service design. The basic premise of this approach is that client goals should logically flow from program goals, which flow out of agency mandates, that are designed to meet broader community regional and funder goals, that in turn flow from provincial or state goals. This is often referred to as a “top down” approach. A program logic model can also be designed from the “bottom up,” where client goals should logically drive program goal design; which drive agency mandate design; that then, with multiple agencies, drive broader community regional and funder goals; that in turn drive provincial or state goals. Either approach will result in program and client goals logically flowing from one another.

An important part of developing an agency logic model is to keep in mind that the top down broad logic model is often used to address agency funders and governments concerns, while a bottom up approach is often used to create agency specific models. A bottom up approach ensures that client needs and issues are directly addressed, yet risks not addressing funder or governmental concerns. Whereas, a top down approach addresses funder or governmental concerns and may risk missing or not addressing important client needs. Thus, any logic model needs to consider both top down and bottom up needs, issues, and concerns to address agencies multiple stakeholders’ needs.

Logical Flow

Top Down Flow

Each level leads logically narrows to the next level, then to the next level, and so on...

- 1. Provincial or Funder Outcome Goals (Provincial Business Plan) leads to...**
- 2. Specific Initiative Business Plans leads to...**
- 3. Departmental Goals leads to...**
- 4. Region Specific Outcome Goals (Including Professional Body Goals) leads to...**
- 5. Outcome Standard Statements (Sector Goals) leads to...**
- 6. Agency Mandates & Program Goals leads to...**
- 7. Client Outcome Result Statements (Client Service related Goals, Objectives, or Result Statements) leads to...**
- 8. Client Outcome Indicators (Evidence) leads to...Actual Client Data**

Agency Level Logic Models

Once an agency level is reached, then it is important to start to describe the various components of service delivery as it relates to producing client outcomes. At this level the theoretical model begins to get very detailed. Agency inputs, processes, and outputs are all designed to produce specific short term (client progress, learning, and achievement), intermediate, and long-term (client impact) outcomes. These outcomes are typically described on a program level as “outcome statements.” Still at this point no measurement takes place and the entire model remains theoretical. Finally, measurement begins to be described when outcome indicators are identified. At this more micro level, client outcome is described as some degree of improvement or as some increase or decrease in a measurement instrument. These instruments may be standardized test scores, COI scores, or other types of individualized measures or counts. The COI automated reports provides Pre to Post Needs/Issues Severity Index Scores, Pre to Post Goal Attainment

Scores, and break downs of pre to post scores for categories of client needs/issues and client goals.

Agency Level Flow

Bottom-Up Flow

Each level leads logically relates to the next level, then to the next level, and so on...

- 1. Individualized measures or Evidence that relate to....**
 - a. COI Pre to Post Needs/Issues Severity Scores,**
 - b. COI Pre to Post Goal Attainment Scores,**
 - c. Standardized test scores, and/or**
 - d. Other types of individualized measures or counts.**
- 2. Aggregated to determine Indicators (see #8 in Top Down Model) that are....**
- 3. Aggregated Reports on Outcome Statements (see #7 in Top Down Model) that relate to....**
- 4. Short-term Outcomes, that relate to....**
- 5. Intermediate Outcomes, and that relate to....**
- 6. Long-term Outcomes, that theoretically result from....**
- 7. Outputs, that theoretically result from....**
- 8. Processes, that theoretically relate to**
- 9. Inputs (Including Program Goals and Agency Mandates, see #6 in Top Down Model), that leads to...**
- 10. See Top Down Model #5,4,3,2,1.**

By reviewing both a top-down and a bottom-up approach, agencies are better prepared to address all stakeholder needs and can ensure that their own logic models are consistent and logically flow from macro to micro levels.

The bottom-up approach is functionally useful when data or actual evidence is aggregated at different levels to produce information to address higher levels in the logic model. For example, changes in aggregated COI pre to post scores can act as the indicators for specific short-term outcomes. Also, subsets of data can act as the evidence and aggregated to determine indicators for various outcome statements. For example, COI pre to post scores in broken down by various need/issue or goal categories can act as the indicators for various outcome statements.

Monitoring for Service Recommendations

Once program logic models are created, they can be used as agency-based baseline materials. The logic model accompanied by COI scores will provide the basis for comparing what an agency intended to achieve (logic model) against what the agency actually achieved (COI program reports and data). Recommendations for service improvement can be developed when intended and actual achievement does not match, when the type of outcome is different than what was expected, or when problems are identified with data collection and service delivery. However, recommendations based on one report, or based on only a single time point of data aggregation can be dangerous. Data aggregation and reporting will always vary from one time to another. Acting too quickly risks making decisions based on data variability and not on actual changes in services. Thus, it is better to repeat data monitoring and reporting at regular intervals, for example monthly and identify trends over time. The trends should be the basis for service improvement recommendations and decision-making. The following charts give an example of a broad top down logic model and some hints for producing an agency level program logic model.

Outcome Model Summary

The COI model uses the continual circular process of constant quality improvement as described by Deming and others as an evaluation sequence. It uses a practical and integrated pre to post client-monitoring design. Cyclical evaluation methods link service evaluation of client change to agency logic models.

Quality improvement iterations are a main component in this model. These loops require information to be circulated through cycles eventually used as stimuli to assist in determining recommendations for quality improvement. The COI model is an empirically based feedback model intended to influence service redesign through ongoing review of data-based reports.

A service delivery iteration uses the information resulting from outcome evaluation to act as a tool to determine organizational effectiveness concurrently while the service operates. A service redesign iteration acts upon statistically based information compiled by the stakeholders as stimuli for actual program redesign and delivery. Thus, one continuous iteration leads to stimuli for the following iteration to use within its own continuous cyclical operation. Smaller cycles or iterations can be linked together to produce a larger or macro cycles, a seemingly continuous improvement cycle. Theoretical program logic models can be developed and COI aggregated measures can then act as the basis for determining how close programs meet program logic statements and indicators. The COI model encourages the use of individual client data as the empirical basis for the program or outcome evaluation. Multiple clients' data is aggregated to produce outcome evaluation reports, these reports are used as the basis of logic model compliance and as the stimuli for improvement. The cycle then repeats itself continuously.

Appendix A: Program Logic Model Resources

The basis of Program Logic Model approaches is that there is a logical flow among the components that comprise the program evaluation plan. Program Mandates flow into Program Areas, and Program Areas have Program Goals. Program Goals are often synonymous with Short-Term Outcomes and should have accompanying logic components such as Inputs, Activities, Indicators, and Measurements. Statements of mixed concepts are often termed Objectives. Objectives often have an outcome and activity component mixed together.

Inputs	Activities	Outputs	Target Group	Outcome Statements			Indicator	Outcome Measurement		Design
Resources, Budget Lines	Activities, Tasks, and Strategies	Deliverables	Client Group, Sample, or Community	Short-Term	Intermediate Mid-Term (Impact)	Long-Term (Impact)	Success Indicator; Evidence of Success	Tests & Surveys: Standardized or Otherwise	Other Measures	Data Measurement Design
<p>Inputs are usually the resources that a program uses to implement activities directed toward goals/short-term outcomes.</p> <p>Budgets will list important inputs.</p> <p>Some inputs are required by funders or accountability/professional bodies, but are not funded (staff qualifications).</p> <p>Participants may contribute to program design and input allocation.</p> <p>An input in evaluation is complexity of measures. Keep Measurements few in number and as simple as possible</p>	<p>Program and Practitioner Activities Should be separately identified from Client or Participant Activities</p> <p>Note and look for the verbs: To encourage To promote To deliver To give To Attend</p> <p>Doing verbs suggest the concept is an activity.</p> <p>Other names for activities are strategies, tasks, procedures.</p> <p>Micro tasks can be grouped into strategies, that can be grouped again into procedures. Multiple procedures often comprise the entirety of an intervention.</p>	<p>Frequency Counts, Occurrences of...</p> <p>Occurrences of workshops, presentations, sessions, and so on are all examples of deliverables.</p> <p>A critical distinction here is that something can be delivered but no change necessarily occurs with participants or targeted groups/clients.</p> <p>Satisfaction Measures should go here.</p> <p>Satisfaction Measures Program Acceptance and Liking, not Client Change</p>	<p>The group of people being surveyed or tested for an evaluation.</p> <p>This is a group receiving service; it is not an employee group.</p> <p>Some different types of sample selection include non-random, matched group, snow-ball, convenience group sampling. The most common method in evaluation is to use non-randomized sampling. A randomized sample with multiple comparison groups, including at least one control group, is a much better method but not always possible.</p>	<p>Note and look for verbs such as: To have... To be...</p> <p>Outcome is PERSON, CLIENT, or PARTICIPANT CHANGE and identifies what clients or target groups have at the end of an intervention.</p> <p>Look for change in domains:</p> <ul style="list-style-type: none"> • Knowledge • Behaviour • Cognition • Affect • Social Networks • Characteristics • Resources • Etc. <p>A change occurs from pre to post intervention with the immediate target group or clients.</p>	<p>All outcome Statements at any level should logically flow with one another</p> <p>Short-term outcome is the immediate client change visible right at the end of an intervention; it is the easiest outcome to measure and programs have the greatest control over this change.</p> <p>Intermediate outcome is often the change one would observe after the end of the service and directed toward long-term client change.</p> <p>Sometimes change is referred to the broader community that has contact with the immediate target group.</p>	<p>All Outcome Statements can eventually be boiled-down, or be measured, Pre to Post at a Person or CLIENT level, then aggregated at broader levels.</p> <p>Often Long-term outcomes are aggregates of person by person measurements.</p> <p>Long-Term Outcome is sometime referred to as Client Impact</p> <p>Impact or Long-Term Outcome is very often measured at follow-up periods, or with longitudinal time series analyses. Programs have the least control over long-term client change. Sometimes change is referred to in the Broader Society.</p>	<p>Note and Look for Words indicating:</p> <ul style="list-style-type: none"> • Increase • Decrease • Improve • Number of... • Percent • Ratio of ... <p>Indicators show how one knows an outcome has been reached, usually with a focus on change from a baseline status.</p> <p>Indicators can be for Short-Term, Intermediate, or Long-Term Outcomes. In each case the types of indicators may change.</p>	<p>Program Constructed Measures or Program Surveys are often not reliable nor valid measures of outcome and should be used with caution.</p> <p>Standardized tests are great when resources and training allow for these tests. Many agencies do not have the trained personnel, nor resources to use such instruments.</p> <p>Tests used to develop client clinical profiles are often poor outcome measures, but great for stable diagnostic purposes.</p>	<p>Very Commonly Outcome and Process are mixed together, all measures should be reviewed to ensure the two are not mixed.</p> <p>Counts of change in client characteristics and status are common here but still require a Pre Measure.</p> <p>Money used as a measure is usually a measure of cost effectiveness, not client change. Measures of wealth are an exception.</p> <p>Community change usually still requires measurement of people variables or the environment associated to people regardless of whether or not they received intervention.</p>	<p>Collection Method</p> <ul style="list-style-type: none"> • Pre Only • Post Only • Pre to Post • Time Series • Follow-Up <p>Sample Selection</p> <ul style="list-style-type: none"> • Non-Random • Randomized • Matched Group • Snow-Ball • Convenience <p>Independent Variables</p> <ul style="list-style-type: none"> • Groups • Demographic • Programs • Service Types • Area <p>Controls</p> <ul style="list-style-type: none"> • Internal • External

Appendix A: Program Logic Model Resources

Inputs	Activities	Outputs	Target Group	Outcome Statements			Success Indicator	Outcome Measurement Tools	Evaluation Design
Resources, Budget Lines	Activities, Tasks, and Strategies	Deliverables	Client Group, Sample, or Community	Short-Term	Intermediate Mid-Term (Impact)	Long-Term (Impact)	Evidence of Success	Surveys; Standardized Tests; Other Measures	Data Measurement Design

By the end of the description of the logic model, the following should be easily described:
 ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

Inputs	Activities	Outputs	Outcome Statements			Indicator	Outcome Measurement			
			Short-Term	Intermediate	Long-Term		COI Pre to Post Needs/Issues Severity Index Scores	COI Pre to Post Goal Attainment Scores	Other Measures: Standardized Tests or Program Constructed	Evaluation Design

By the end of the description of the logic model, the following should be easily described:
ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

Appendix B: A Logic Models Workshop

Creating Program Logic Model

Initial Set-up

- 1. Meet with Key Stakeholders, esp. include the Executive Director, Perhaps Board**
 - Have the ED or Program Manager describe their agency. What is it that they do? What is their vision? Mission Statement? Build the answers to this into the PLM sheets prior to the workshop.
 - Are they able to separate their programs/services?
 - Have them describe what type of services they provide.
 - How are they funded? Usually the type of service provided funds programs.
 - Create a flow chart of the agency.
 - Each program within the agency will require a Program Logic Model.
 - Describe the process/planning of the Program Logic Model.
- 2. Identify Key Stakeholders and Program People within the agency**
 - Who are the key people? (Personnel, Board, Mayor, etc.)
 - Who will be committed to developing a PLM?
 - Who can implement the PLM?
 - Who can also teach a PLM process to various staff groups (train the trainer)?
 - These are the people to hash out the PLM for their program or service
- 3. Organizational Self-Assessment Survey.**
 - How many programs will use the PLM and database? Prioritize and choose the first as a pilot.
 - What are the technology needs?
 - What are the informational needs?
 - What are the barriers? Where/who will create the greatest resistance to change?
 - Where/who will create the greatest support and advocacy for the upcoming change?
- 4. Identify what Direct, Indirect, Internal, and External Services the Organization Provides**
 - What direct services are provided to the clients and community using internal services
 - What services are contracted, or subcontracted, out and use external agencies to provide the direct services.
- 5. Identify Existing Resources within the Organizations where Logic Model information Exists**
 - What information is contained in funding proposals, Schedule A, etc.; What is required by Funders?
 - What policies state the objects/mission, vision, philosophy, operational goals, program divisions, etc.?
 - Do Annual Reports, Job Descriptions, and Organizational Charts contain useful information?
 - What does government legislation, policy, and directives state needs to be collected?
- 6. Set a date for a Community Introduction**
- 7. Set a date for each program to create a PLM.**
 - Arrange for key people within the program to come together to brainstorm and create a PLM.
 - Ideally, this would involve no more than eight people.
- 8. What is already being done for Program Evaluation and Information Management.**
 - Ask, "What do you already do, and what could you do that other like programs already do?" Build the answers to this into the PLM sheets prior to the workshop.
 - Ideally, this would involve no more than eight people.

By the end of the description of the logic model, the following should be easily described:

ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

Creating the Program Logic Model: A Workshop Outline

1. Overview

- Explain why they are creating a PLM.
- Explain what they are going to do.
- Explain the process involved, handout the questions as you go along.
- Define the concepts within a PLM from mandate to inputs to impact.

Define the Program or Project

2. Mandate

- Ask “Why does the program/project exist?”
- What is its unique role?
- What is the purpose of the organization/project?

3. Vision

- Ask “If you wave a magic wand and all of your program goals were met, what social condition would occur?”
- What is the ideal state the project is working toward?
- Use the verb to be (i.e. The program will be...)

4. Statement of Need

- Who is your community or target client group?
- What are they telling you about their situation?
- What problem or issues will be addressed in the community or target client group?

5. Broad Strategy

- What is the type of service you have?
- What do other programs like yours do?
- What will your program do that other programs like yours do?
- What model will use that is unique?

6. Rationale

- If you address the statement of need with the broad strategies, then what does the literature and research indicate will happen?
- What evaluation information exists that supports your program to address the statement of need with the broad strategies?
- To what degree can you predict it will be successful?

7. Project Goals

- Describe the bodies and organizations that the project requires some accountability.
- What are the outcome statements required by governments, funders, and/or professional bodies?
- Given all the above information, in general, what do you hope to achieve with the project?

8. Target Group

- Describe the population, then who in the population will you serve.
- Who is your client group, consumer, or stakeholder receiving services and program benefit?
- Who will benefit from the services you provide?
- Who will you need to survey?

By the end of the description of the logic model, the following should be easily described:

ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

Create a Program Logic Model

By the end of the description of the logic model, the following should be easily described:

ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

9. Long Term Impact = Overall Impact.

- This is the area to start with when developing a PLM. Ask the question “If you waved a magic wand, what problems would you solve in your community or target group?”
- Have them think of what they would like to see five years down the road.

10. Mid-Term Impact

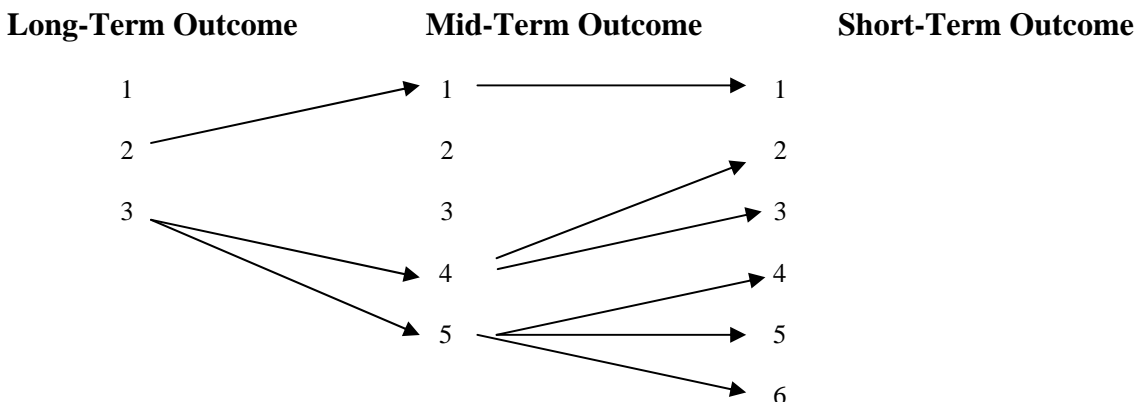
- What achievements will lead up to realizing the long-term impact?
- After completing the service to be provided, what does the program hope to have addressed? After six months? After twelve months? After 2 years?
- Which mid-term goals will help to achieve the long-term impact?

11. Short-Term Outcome

- Immediately following service, what do you hope to achieve?
- How will people have changed?
- Try to keep to three or four statements. Keep it short and manageable.
- Which short term goals will aid in the achievement of the mid-term goals?
- What Domains of change will results occur?
- Look for things the participants and clients will have or will have changed by the end of the project.

12. Link all related Outcome Statements

- Link all the components with if-then statements. If the long-term outcome is to be achieved, then what mid-term outcomes need to be achieved? If the mid-term outcomes are to be achieved, then which short-term outcomes need to be achieved?
- Which short-term goals will address which mid-term and which mid-term will address long-term?
- Delete the stragglers. Reduce by eliminating all short-term, mid-term or long term outcomes that are not interconnected.
- Logic = one thing is connected to the next.



By the end of the description of the logic model, the following should be easily described:

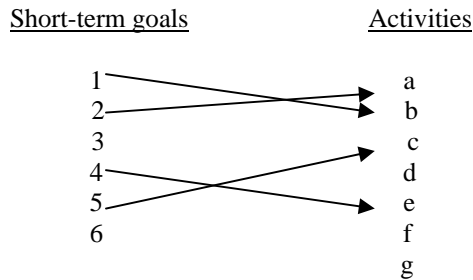
ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

13. Outputs

- If the short-term outcomes are to be achieved, then which outputs need to be delivered?
- What are the deliverables of the project?
- Look for counts of things, i.e. workshops, sessions, client counts, volunteer counts, hours etc.

14. Activities

- If the short-term outcomes are to be achieved, then which activities need to occur?
- What activities will help achieve each short-term goal?
- Look for action verbs.



- What will be the result for the activities that occur?
- Which activities or actions do staff and practitioners complete, and which do participants or clients complete?

15. Resources/Inputs

- What resources (inputs) will you need to ensure each of the activities will occur?
ie: A staff (input) will teach (activity) at a workshop (output) so the client will learn something (short-term outcome) to address his/her problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).
- Attach monetary value to these items.
- Be linguistic and take out the items that do not fit.

By the end of the description of the logic model, the following should be easily described:

ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).

Now Focus only on the Short-Term Outcomes

16. Indicators and Measurement Tools

- This is your yardstick for measuring the success of your outcomes
- Pick an outcome and ask “How will you know when this has been achieved?” “What is the evidence and how will it be measured?”
 - **Target** = a measurement to work toward
 - **Baseline** = a measurement that acts as a minimum, or starting place
 - **Benchmark** = overall in the research or in the industry, the typical achievement or how many are expected to achieve the target
- Describe the measurement tool or measure. What is being used? COI Profiles? Standardized test? Survey?
- Describe if it increases or decreases
- Identify every Measurement tool
- Every tool must be quantifiable

17. Research Design

- When are they going to collect the data? Pre, Post, Time-Series, Follow-up, etc.
- What is the sampling technique?
- Who will collect the data – stress Integrated Data Collection Design.

18. Work Plan and Training Plan

- To implement the program logic model what is the step-by-step plan.
- Create plans for dealing with resistance, use inclusion wherever possible.
- Use the training plan.
- Set dates for PLM completion
- Set dates for PLM entry into the database
- Set dates for subsequent program/project completion and data entry of the PLM’s
- Set dates for Data instrument design and entry into the database
- Set dates for begin of data entry
- Set dates for follow-up
- Set dates for analysis
- Set dates for Quality improvement review

By the end of the description of the logic model, the following should be easily described:

ie: What resources and inputs will be needed for staff/practitioner to act in specific ways so that they may deliver which outputs so the client/participants will learn something or demonstrate change (short-term outcome) to address his/her/community problems (mid-term outcome) which will in turn solve a larger community need (long-term outcome).