REPUBLIC OF GEORGIA
Ministry of Labor, Health, and Social Affairs

Primary Health Care Development Program

Interim Report **2**

Development of Monitoring & Evaluation System

Phase 2: Draft M&E System Design and Integrated Program Log-Frame

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Acronyms

BBP- Basic Benefit Package

CIF-Curatio International Foundation

DFID – Department for International Development (UK)

EC – European Commission

EU –European Union

FM – Family Medicine

FSU-Former Soviet Union

GEL- Georgian Lari (local currency)

GP – General Practice/Practitioner

GoG – Government of Georgia

HMIS – Health Management Information System

HR-Human Resources

HSPIC – Health and Social Projects Implementation Center

HPU – Health Policy Unit

IEC – Information Education and Communication

MoF- Ministry of Finance

MoLHSA – Ministry of Labor, Health and Social Affairs

NSIC- National Strategy Information Center

OPM- Oxford Policy Management

PAD - Project Appraisal Document

PGMA – Post Graduate Medical Academy

PHC – Primary Health Care

PHD- Public Health Department

PIP – Project Implementation Plan

RFMTC – Regional Family Medicine Training Center

ToR – Terms of Reference

SMA – State Medical Academy

USAID – United States Agency for International Development

Glossary of Select M&E Terms

In any field, terms are sometimes used differently by various organizations and entities. Though the definitions of terms in this glossary are well-recognized and used in the field of M&E, other terminology can be used to describe similar concepts, and is not necessarily wrong or less effective than what is presented here.

Academic Research: Research that focuses primarily on hypothesis testing in a controlled environment. It typically attempts to make statements about the relationships among specific variables under controlled circumstances, at a given point in time.

Activity: A program proceeding/action such as a counseling session, material distribution, a workshop, a training, outreach, or specific technical assistance that alone, or in conjunction with other activities, will have identifiable outputs.

Administrative Records: Various sources of information that are used to describe program inputs and program related, project level activities. Examples include: Budget and expenditure records and logs of commodities.

Analysis: The process of systematically applying statistical techniques and/or logic to interpret, compare, categorize, and summarize data collected in order to draw conclusions.

Annual Report: Annual reporting document. The annual report summarizes progress and achievements of the sector or supported programs, and serves a variety of audiences including parliament, external stakeholders, Country Program managers, Development Finance Institutions, and other implementing partners.

Assessment and Planning: The collection of information and data needed to plan programs and initiatives. These data may describe the needs of the population and the factors that put people at risk, as well as the context, program response, and resources available (financial and human).

Assumption: (1) Presumptions or "educated guesses" that program planners make based on socio-political and economic issues that exist in the context of the respective program, as well as the limitations and facilitators that these issues have on the potential success of the program. (2) Hypotheses about conditions necessary to ensure the desired program results, and the logical cause-and-effect relationships represented in a program logic model.

Baseline: The status of services and outcome related measures, such as knowledge, attitudes, norms, behaviors, and/or condition prior to an intervention.

Budget Plan: GAP-specific budget request document.

Case Study: A methodological approach to describing a situation, individual, etc. that typically incorporates a number of data gathering activities (e.g., interviews, observations, and questionnaires) at select sites or programs. In the GAP context, case studies are done in a country to determine CDC's overall "value added." The findings are then used to report to stakeholders, make recommendations for program improvement, and for sharing lessons with other countries.

Comparison Group: In evaluation studies, a comparison group is not completely equal in all characteristics to the program group, but will have a number of similarities in terms of demographics and other factors that are relevant to the group members.

Cost-Benefit Analysis: A measure of inputs and outputs in monetary terms.

Cost-Effectiveness Analysis: An estimate of inputs in monetary terms and outcomes in non-monetary quantitative terms (e.g., reduction in HIV prevalence).

Coverage: The extent to which a program reaches its intended target population, institution, or geographic area.

Disease Surveillance: The ongoing systematic collection, analysis, and interpretation of data to describe diseases and their transmission in populations. These data can contribute to predicting future trends and targeting needed prevention and treatment programs.

Economic Evaluation: Economic evaluations use applied analytic techniques to identify, measure, value, and compare the costs and outcomes of alternative interventions. Types of economic evaluations include: cost-benefit, cost-effectiveness/efficiency evaluation.

Experimental Design: A study comparing clients randomly assigned to a program (experimental group) with clients possessing similar characteristics who are randomly assigned to a control group.

Evaluability Assessment: An approach used to determine a program's readiness to be monitored and/or evaluated.

Evaluable Questions: Monitoring and evaluation questions that are typically based on stated program objectives. These questions will determine what M&E data will be needed, as well as necessary data collection methods.

Evaluation: A rigorous, scientifically based collection of information about program activities, characteristics, and outcomes that determine the merit or worth of a specific program. Evaluation studies are used to improve programs and inform decisions about future resource allocations.

Facility Survey: A site inventory of all elements required to deliver services such as, basic infrastructure, drugs, equipment, test-kits, registers, and staff trained in the delivery of the reference service. The units of observation are facilities of various types and levels in the health system and will normally include both public and private facilities in the sample frame of sites. It may also be referred to as a service provision assessment. Synonym: Inventory.

Feasibility: The coherence and quality of a program strategy that makes successful implementation likely.

Fidelity: Actual program implementation matches intended implementation plan. This is determined via program monitoring or process evaluation.

Focus Group: A small number of individuals (e.g. 5-11 individuals per group) gathered to explore ideas, attitudes, experiences, and opinions about a program or service. A focus group is made up of a representation of a targeted demographic group.

Goal: A broad statement of a desired, long-term outcome of a program. Goals express general program intentions and help guide a program's development. Each goal has a set of related, more specific objectives that if met, will collectively permit program staff to reach the stated goal. (Also see "Objective.") Synonym: Aim.

Impact Evaluation: Impact evaluations look at the rise and fall of disease incidence. Impact on entire populations seldom can be attributed to a single program or even several programs. Therefore, evaluations of impact on populations usually entail a rigorous evaluation design that includes the combined effects of a number of programs on at-risk populations.

Impact Monitoring: In the field of public health, impact monitoring is usually referred to as "disease surveillance" and is concerned with the monitoring of disease prevalence or incidence. This type of monitoring collects data at the jurisdictional, regional, and national levels (also see "Disease Surveillance").

Impact: The long-range, cumulative effect of programs over time, such as change in morbidity, and mortality. Impacts are rarely, if ever, attributable to a single program; yet, a program may with other programs contribute to impacts on a population. Synonym: Long-term result or effect, Long-term outcome.

Input: A resource used in a program. Inputs include monetary and personnel resources that come from a variety of sources, as well as curricula and materials. Synonym: Resource, Program materials.

Input/Output Monitoring: Input and output monitoring involve the basic tracking of information about program inputs, or resources that go into a program, and about outputs of the program activities. Data sources for monitoring inputs and outputs usually exist naturally in program documentation, such as activity reports and logs and client records, which offer details

about the time, place, and amount of services delivered, as well as, the types of clients receiving services. Synonym: Process monitoring.

Interrupted Time Series: Similar to time series, this design takes multiple measurements on the same clients before and after an intervention or service is received. This method uses one group as its own comparison at multiple points in time (also see "Time Series").

Interview: Open-ended, conversation usually guided by standardized questions with program clients, other stakeholders and key informants.

Logic Model: A program design, management, and evaluation tool that describes the main elements of a program and how these elements work together to reach a particular goal. The basic elements in describing the implementation of a program and its effects are: inputs, activities, outputs, outcomes, and impacts. A logic model graphically presents the logical progression and relationship of these elements. Synonym: Logical framework, Log-frame matrix, Roadmap, Theory of action, Concept map, Model of change, Blue print, Theoretic underpinning, Rationale, Causal chain, Program theory, Chain of causation, and Program hypothesis.

M&E Plan: A comprehensive planning document for all monitoring and evaluation activities within programs. This plan documents the key M&E questions to be addressed, what indicators are collected, how, how often, from where and why they will be collected; baselines, targets and assumptions; how they are going to be analyzed/interpreted and how/how often reports will be developed and distributed on the evolution of these indicators. Synonym: Performance monitoring plan.

Management Information System (MIS): A data system, usually computerized, that routinely collects and reports information about the delivery of services, costs, demographic and health information, and results status.

Monitoring: The routine tracking and reporting of priority information about a program and its intended outputs and outcomes. Synonym: Tracking.

Non-experimental Design: Compares clients before and after program participation or over a period of time during participation to learn more about the effects of the program on these individuals.

Objective: A statement of desired, specific, realistic, and measurable program results. (also see "Goal.") Synonym: (Performance) Target.

Operations Research/Evaluation: Operations research or operations evaluation applies systematic research techniques to improve service delivery. This type of research and evaluation analyzes only those factors that are under the control of program managers, such as improving the quality of services, increasing training and supervision of staff, and adding new

service components. Operational research is designed to assess the accessibility, availability, quality, and sustainability of programs.

Outcome Evaluation: Type of evaluation that is concerned with determining if and by how much program activities or services achieved their intended outcomes. Whereas outcome monitoring is helpful and necessary in knowing whether or not outcomes were attained, outcome evaluation attempts to attribute observed changes to the intervention tested; describe the extent or scope of program outcomes; and indicate what might happen in the absence of the program. Outcome evaluations are methodologically rigorous and require a comparative element in its design, such as a control or comparison group (also see "Experimental Designs" "Quasi-experimental Designs", and "Non-experimental Designs"). Synonym: Summative evaluation, impact evaluation.

Outcome Monitoring: Outcome monitoring is the basic tracking of variables that have been adopted as measures or "indicators" of the desired program outcomes. Outcome monitoring may also track information directly related to program clients, such as change in knowledge, attitudes, beliefs, skills, behaviors, access to services, policies, and environmental conditions.

Outcome: The effect of program activities on target audiences or populations, such as change in knowledge, attitudes, beliefs, skills, behaviors, access to services, policies, and environmental conditions. Synonyms: Achievement, Effect.

Outcome Objective: Objectives related to program outcomes. An outcome and its related objective say something about the effect of program services or activities on target audiences or populations (also see "Objectives" and "Outcomes").

Output: The results of program activities. Outputs relate to the direct products or deliverables of program activities, such as number of counseling sessions completed, number of people reached, and number of materials distributed. Synonym: Product.

Participatory M&E: An approach that invites active involvement in data generation, interpretation, and use from stakeholders. Allows learning about local conditions, perspectives, and priorities to design or revise responsive and sustainable interventions. May be used to evaluate a project, program, process, or policy.

Policy Evaluation: Evaluation that focuses on assessing the application and effectiveness of policies.

Population-based Surveys: A large-scale national health survey, such as the Demographic and Health Survey.

Pretest/Posttest Design: A measurement is taken of clients prior to a program intervention (pre-test) and again after the intervention (post-test). This evaluation design is useful in measuring changes in knowledge, skills, attitudes, and self-reported behaviors before and after an

intervention, and allows for a comparison of indicators or measures of the same program participants at two points in time.

Problem Statement: A statement that describes the nature and extent of the problem to be addressed by an intervention, including factors that put a population at risk. These factors may be related to knowledge, attitudes, beliefs, behaviors, skills, access to services and information, policies, and environmental conditions. The problem statement often results from assessment and planning activities.

Process: Program implementation involving the supply of inputs, the carrying out of activities, and the achievement of outputs. A program's "process" is the combination of its executed activities. Synonym: Operations, Activities.

Process Objective: Objectives related to program outputs. An output and its related objective say something about the accomplishment of the "process" of delivering a service or activity, but not about the effect of these services or activities on clients (also see "Objectives" and "Outputs").

Process Evaluation: Type of evaluation that focuses on program implementation, adding a dimension to the information that was tracked in input/output monitoring. Process evaluations usually focus on a single program and use largely qualitative methods to describe program activities and perceptions, especially during the developmental stages and early implementation of the program. These assessments may also include some quantitative approaches, such as surveys about client satisfaction and perceptions about needs and services. In addition, a process evaluation might provide understanding about a program's cultural, socio-political, legal, and economic contexts that affect programs. Synonym: Progress assessment.

Program Group: Participants who receive an intervention or services.

Qualitative Methods: Qualitative methods such as interviews, focus groups, direct observation, and abstraction of written documents (such as program records) can provide an understanding about social situations and interaction, as well as people's values, perceptions, motivations, and reactions (Also see "Interviews" and "Focus Groups").

Quantitative Methods: Surveys and questionnaires used to systematically collect information for a carefully selected sample of individuals and households. Provides data for evaluating achievement of outcomes.

Quasi-experimental Design: Roughly replicates experiments by comparing those individuals who receive program services with those who, through a natural or non-randomly assigned process, do not receive the same services.

Rapid Assessment Process (RAP): An approach used for understanding perceptions, beliefs, practices, and behaviors of groups of individuals to plan or correct prevention activities mid-

course. A combination of qualitative methods may be used instead of, or supplementary to, quantitative survey methods.

Reach: Sufficient number of clients (sample size) achieved to apply statistical tests necessary for data analysis.

Reliability: Consistency and dependability of data collected through repeated use of a scientific instrument or data collection procedure used under the same conditions; data reliability is independent of data validity; i.e., a data collection method may produce consistent data, but not measure what is intended to be measured.

Retrospective Design: A measurement taken of clients only at one point, after the program intervention. Retrospective evaluation designs are useful when there are time or access constraints that allow only one chance to gather data from each client.

"SMART" approach to writing objectives: A tool to determine whether or not objectives will be measurable and useful to program planning. Specific: Identifies concrete events or actions that will take place. Measurable: Quantifies the amount of resources, activity, or change to be expended and achieved. Appropriate: Relates to the overall problem statement and desired effects of the program. Realistic: Provides a realistic dimension that can be achieved with the available resources and plans for implementation. Time-based: Specifies a time within which the objective will be achieved.

Stability: Sufficient likelihood that a program will not change during the life of the program or during the program/intervention period being evaluated.

Stakeholder: Person, group, or entity that has a role and interest in the goals/objectives and implementation of a program.

Sustainability (of a program): Sufficient likelihood that political and financial support will exist to maintain the program while the evaluation is being conducted.

Two Group, Interrupted Time Series: Study in which a comparison group is used to administer an interrupted time–series design (also see "Time Series" and "Interrupted Time Series").

Two-Group, Pre-Test/Post-Test Non-Equivalent Comparison Group: Baseline or pre-intervention (pre-test) and follow-up (post-test) measurements are taken from an intervention group and a comparison group. The impact (effectiveness) of the intervention in this design is calculated by the comparison of the difference between the pre-test and post-test measures from the intervention group, as well as the difference between the pre-test and post-test measures from the comparison group. Allocation to intervention and comparison group is non-random.

Time Series: A pre-intervention or baseline measurement is followed by a number of similar measurements after an intervention or service has been delivered. This design allows evaluators to see the possible effects of an intervention soon after clients receive it and at another time period after the intervention or service has been received (also see "Interrupted Time Series").

Validity: The extent to which a measurement or test accurately measures what is intended to be measured.

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1. Introduction

Multiple stakeholders are providing support to the Government of Georgia (GoG) for the implementation of Primary Health Care (PHC) Reform. A unified view of the combined activities of all the Multi and Bilateral agencies is a must, in order to have well coordinated interventions and a more effective outcome of all the interventions related to PHC. The need for a collective framework is derived both from an operational viewpoint, as well as the technical need to avoid overlapping and to be able to visualize the effect of combined efforts seeking a common reform goal.

The Georgian Government has established the Georgia Health and Social Projects Implementation Center (GHSPIC) as the implementing state agency acting on behalf of the Government of Georgia, to coordinate with the World Bank, EU TACIS, DFID and USAID on the development and phased implementation of a new and sustainable model of Primary Health Care (PHC). The GHSPIC provides administrative direction for PHC development and implementation.

The combined interventions addressed to reform the PHC in Georgia will invest over $45.0 million in the next five years. Tracking how these resources have been and will be spent is necessary. Assessing the results that were achieved, understanding the combined effect of financing sources, and learning about their respective processes, outputs, and the expected results, is also necessary, in order to tackle the inefficiencies of the Health Sector in Georgia

In this context, the present consultancy assists the MoLHSA through the GHSPIC in the preparation of the conceptual design of an M & E system, including the preparation of the overall logical framework for the PHC reform. The scheme to be proposed upon approval should:
- Act as a roadmap to the main stakeholders (MoLHSA, the WB, USAID, EU DFID, and USAID projects);
- Include main criteria to monitor and evaluate the PHC system performance of input/processes/output/outcome/impact indicators;
- Include key performance indicators and targets, information needs, information collection methods, sampling procedures, and reporting formats and procedures.
- M & E Unit structure and staffing needs.

The overall objective of the present consultancy is to assist the Ministry of Health, Labor and Social Affairs (MoHLSA) in preparing a Unified Log-frame and the conceptual design of a Monitoring and Evaluation system for the PHC reform project, consequently allowing an

ongoing Primary Health Care sector performance review. The development of this M&E framework pursues two central objectives: (i) to develop a health PHC sector approach to track and determine whether the overall Primary Health Care system activities/interventions are achieving the planned objectives. In such a case, the M&E system works as a tool for Government officials and partner agencies to track the progress of intermediate and final goals; and (ii) to determine if the means developed for the implementation of the PHC reform reach their objectives as expected, including timely and efficient implementation and adequate disbursement.

This Phase 2 Interim Report is the second deliverable under the consultancy related to the M & E design for a continuous monitoring of the PHC reform that is underway in the country. The Report based on a detailed assessment presents all the processes and outputs to be produced by the implementing agencies related to the PHC reform program. It draws on the available information provided in the Master Terms of Reference, the supporting documentation collected from diverse stakeholders, and the in-depth interviews with them.

The report also presents the unified Log-frame; the M & E conceptual framework, including a draft of key performance indicators; recommendations for the collection and presentation of baseline data for the start-up and implementation of the M&E; outlines the proposed information system for the M&E system; and provides highlights of key aspects related to the implementation of a sustainable M&E system in Georgia.

2. Sector Issues addressed in the Primary Health Care Program

Prior to the break-up of the former Soviet Union in 1991, Georgia had one of the highest standards of living in the region and a relatively well-functioning healthcare system. However, the process of economic transition to a market based economy, the breakdown of guaranteed markets and trading relations, together with civil conflict, led to a precipitous economic collapse. Between 1991 and 1994, economic output fell by nearly 80 percent, and government revenue collection systems broke down. As a result, public health expenditure fell to less than one dollar per capita by 1994. Although this rose to $8.9 per capita in 2001, it is still not enough to finance either universal or comprehensive healthcare. In fact, even at current levels of less than $20 per capita, Georgia has barely enough resources to cover a set of essential services, such as vaccination and universal mother and child care. Furthermore, burdened with an extensive hospital system and minimum capacity in the primary care system, Georgia is faced with a significant challenge to build a new healthcare system based on a primary care model and to consolidate the extensive hospital infrastructure.

Beyond this overall framework, a number of challenges have been highlighted through the extensive background papers prepared by the stakeholders in the health sector. In summary, the main sector issues that are being addressed include:

Lack of Access to Quality Basic Health Services*:* For some groups in Georgia (the poor, rural, and high mountain populations) access to quality health care is a significant problem. The problem of poor access is particularly severe among rural and high mountain populations, which face geographic and financial barriers to seeking care. The proposed strengthening of PHC would directly address this problem by supporting investments in PHC in rural and high mountain areas, and by supporting a healthcare financing arrangement to enable the urban poor to seek services.

Appropriate decisions regarding the scope of services to be provided to the population must be made. If the population is to receive universal access to basic, quality healthcare services, the government is faced with stark choices in the allocation of its minimal resources to public priorities. Although substantial efficiency gains are possible from improved budget management, it is unlikely that new public resources can be mobilized quickly enough to meet all of Georgia's health needs. This means that important strategic choices need to be made based on what is affordable. These choices will be difficult. The supply of government paid clinicians will need to be brought into balance with the government budget. Decisions will need to be made about which groups will have access to subsidized health care. At the same time, services for those living in poverty and for the elderly will need to be protected. However, improvements will depend crucially on tackling the inefficiencies and the causes of low productivity in the system, as well as on finding new ways of targeting public subsidies more precisely on the health needs of the poor and vulnerable.

Inefficient, Fragmented and Specialized Health Care Delivery System*:* The Georgian health system is highly fragmented, focuses on hospital based specialized care, and is inefficient. In the absence of an adequate primary healthcare system, basic services are being provided in specialized hospitals and polyclinics. The clinical protocols on which the delivery system is based are also outdated. This greatly contributes to the inefficiency of the health system. The proposed Project would help in shifting the orientation of the health system toward preventive and primary health care and realign the rest of the system to support primary care. It would also support restructuring and downsizing of existing PHC infrastructure in the country and realign, retrain, and redeploy health personnel depending on the current needs in the country.

Distortions in Health Care Financing: There are specific health care financing problems facing the country, i.e., the need to increase public expenditures on health, improve the allocative and technical efficiency of these expenditures, encourage the mobilization of private spending of health care through risk-pooling arrangements, and reduce informal payments in the health sector. In addition, the key issue related to the sustainable implementation of PHC is changing the health care financing arrangement so that providers have the incentive to provide PHC services, and provider payment systems are designed to encourage the delivery of cost-effective and efficient PHC services, as well as be responsive to the needs of the patient.

Currently, utilization rates for health facilities, especially ambulatories, are extremely low in Georgia. This is related to the extremely poor condition of the facilities, lack of heating during

winter months, and outdated medical equipment. The condition of rural and high mountain ambulatories is particularly bad.

Lack of an Appropriate Policy and Regulatory Framework for PHC: Further development of policy and the legal basis for the formation of PHC through family medicine (for e.g. in solo or family group practices), along with the regulation of PHC is required. These systems need to be in place if PHC has to develop throughout the country. The investment needs for the establishment of PHC on a countrywide basis are huge. Therefore, it is necessary to ensure that the legal conditions for establishing PHC are in place, and if doctors in Tbilisi or any of the other urban centers (e.g. Poti, Batumi) want to establish a PHC clinic, they can do so. At the same time, it is necessary to ensure that the MoLHSA has the capacity to appropriately regulate these facilities.

The government health workforce is too large to pay properly. It is structured inefficiently, it is demoralized, and it has privatized itself in order to survive. Little attention has been paid to optimal human resource requirements or to their productivity. The state-funded basic benefits package is unaffordable and complex, and people now have to pay for health services. Many, particularly the poor, cannot afford treatment. Those that can afford treatment, often bypass primary care and seek hospital care, believing it to be better. Health indicators in Georgia have worsened significantly over the past decade. Diseases such as TB are re-emerging and HIV-AIDS is on the increase.

3. PHC Reform Program

This section provides a broad overview of the scope of the PHC reform program, as the framework for the design of the unified log-frame and the M&E system.

The Government of Georgia, the World Bank, DFID, EU, and USAID have joined forces to implement a new and sustainable model of primary health care (PHC), which responds to many of the sector deficiencies described in the previous chapter. A successful implementation of the PHC Program is expected in order to improve the quality and efficiency of healthcare services in the country. The main objective of the proposed program is to improve access and utilization of appropriate Primary Health Care services based on a model of family medicine.

A Memorandum of Understanding was signed between the Government of Georgia/Ministry of Health, Labor and Social Affairs, World Bank, European Union, and DFID in January 2003, to cooperate in the establishment and further development of a sustainable Primary Health Care system in Georgia. The cooperation is aimed at strengthening the coordination of state and international initiatives in the sector, so as to optimize the benefit for all stakeholders, particularly the poorest sectors of the Georgian population. The Board mandate is to act as the overall governing body of the PHC Program. It should define and communicate the ongoing

vision and mission of the PHC Program, and it should coordinate activity between the MoHLSA, the stakeholders, and other GoG initiatives.

In March 2004, a document entitled "Primary Health Care: Master Terms of Reference" was prepared to summarize the overall dimension of the PHC reform program. The document identifies high level goals, objectives, activities, deliverables, plans, constraints, risks, reporting needs, and key evaluation considerations. The document also discusses the strategic approach and inter-dependencies.

From this document, five major domains of work (often referred to as work-streams) are outlined. The work-streams are inter-dependent, and it is important that different projects adequately coordinate all domains. The work-streams include:

- ✓ Master Plan, Rehabilitation, and Equipment
- ✓ Service Delivery/Human Resource Development
- ✓ Health Care Financing
- ✓ Health Management Information Systems
- ✓ Health Information, Education & Communication (IEC)

These are further developed into a number of key areas under the PHC Development Program which include:

- ❑ Rationalization and refurbishment of the PHC sector facilities and the referral system;
- ❑ Provision of essential PHC equipment to the refurbished facilities;
- ❑ Ensuring access to essential medicines at the PHC level;
- ❑ Capacity building for PHC training and support of human resource development in general practice/family medicine (GP/FM);
- ❑ Development of national policies to support the initiative;
- ❑ Development of a health care financing system that will ensure sustainable functioning of the PHC and entire health system;
- ❑ Capacity building of the MoHLSA;
- ❑ Development and implementation of the Health Management Information System (HMIS) for effective decision making;
- ❑ Planning and Implementation of a supportive and highly targeted Information, Education, and Communication (IEC) campaign to raise public awareness

These key areas will need to be monitored and their outcomes evaluated under the proposed M&E framework. Most importantly, the commitment of the Georgian Government to ensure that the PHC Program meets the needs of the Georgian population, requires the leadership role to be played at the different levels within the MoHLSA and other stakeholders.

Successful programs occur when there is a strong sense of urgency in the form of deliverables that cannot be missed. The longer the time period passes between PHC program deliverables, the greater the chance the program will not be on time, on budget, meet the proposed goals, obtain stakeholder satisfaction, and most importantly, political support may be lost.

3.1. Sources of Finance

The reorientation of a primary healthcare system appears on the top of the Government's recent agenda, and it has generated remarkable support from various donor agencies, such as EU, DFID, World Bank, and USAID. The committed funding for the PHC Program comes from these four external sources. Additional sources are expected over time, and in fact, the EU has committed a new budget to provide additional support to the health sector. The committed funding sources are:

Funding Sources	IMPLEMENTING ORGANIZATIONS	TARGET GEOGRAPHICAL AREAS	PRINCIPAL ACTIVITY DOMAINS	USD-$ AMOUNT[1] AND TERM
WORLD BANK & GoG	Health and Social Projects Implementation Center	Start in Imereti and Ajara Regions – Various National Activities	+/- 18% for Technical Assistance and 82% for Construction, Equipment and Other.	$24,802,604 **June 2003-2008**
EUROPEAN UNION	GVG /other	Kakheti Region	+/- 42% for Technical Assistance and 58% for Construction, Equipment and Other	$8,300,000 **March 2003-2006**
UK-DFID	Oxford Policy Management	National level	100% for Technical Assistance	$7,166,876 **Sept 2003-2008**
USAID	Abt Associates Inc./CIF	National level	Cooperation in Health Systems Transformation Projec (CoReform)	$6,999,987
			TOTAL:	$ 47,269,479

4. A Unified Logical Framework for PHC Reform in Georgia

In spite of the work, which has already been performed, the PHC Reform has a weak overall log frame to clearly define the hierarchy of goals and project development objectives, including the horizontal and vertical logic behind the project, and important assumptions and risks that could

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[1] Dollar equivalents based on currency rates in 2003.

influence the program. The process of building a Unified Log-frame has been undertaken with a participatory process with all the stakeholders. It commenced with the revision and fine tuning of the individual projects Log-frames by individual stake-holders. The consultant presents each project Log-frame and the unified Log-frame as one of the inputs to develop the M & E system to facilitate the program/projects and overall reform performance assessment. It is necessary to highlight that the consultant has not changed any given activity or introduced new ones in the individual frameworks. In some cases due to the complexity of matching the indicator levels for practical reasons, some activities have been combined to go to the next level of the output indicator and then the outcome indicator.

These key performance indicators will be used to evaluate the reform functioning in terms of *access, equity, quality, effectiveness, efficiency, and sustainability*. As the projects start producing outputs, these outputs will be chained or linked to similar outputs from other projects, or they will be complementary. In this way, the multiple outputs will lead to outcomes and generate the expected impact to enhance the PHC Sector in Georgia.

4.1. Management authority

In the Log-frame methodology, the level of inputs / processes /outputs indicates the control level that managers have over the project.   Project Managers should have considerable direct **control** and **responsibility** over inputs, processes, and outputs, but can only be expected to exercise **influence** over the achievement of project outcomes, i.e., purposes through the way in which processes have been managed to obtain outputs.

Whenever programs/ projects don't have an M & E system, the Management has more chances of making less informed decisions, therefore provoking delays or gaps in the work plan. Making changes on a project is not inherently bad or good. However, the Project team can react to scope changes in positive and negative ways, depending on the state of the project. The understanding of the Log-frame and the use of an M & E System should avoid the typical action from most project teams to just go ahead and deliver, because the team may not want to make any more changes. This situation usually occurs on projects that have had problems and could be due to not developing an in-depth analysis capability to keep the eyes on the big picture. Obviously Project Managers have no direct influence over achieving the goal, but the chained and cumulative effect at the level of processes and outputs leads and determines the chances of achieving the forecasted outcome /impact.

4.2. The Logical Framework Approach

The PHC Program aims at improving the equitable coverage and utilization of PHC services by the Georgian population. There is only one Program goal. Having more than one goal could imply an excessively complex program, and hence, possible management/ coordination problems. Multiple Program aims may also indicate unclear or conflicting objectives. Clarifying and agreeing precisely on what will define the program's success is always a critical step in the

preparation of any of the Program/ project Log-frame. The specific development objective under each project addresses the core problem that is intended to be solved through the individual project interventions and outlining the components / work stream. The Log-frame presents component objectives to the level of activities/processes.

Drawing up the unified log frame has had two stages, which have been carried out progressively during the two Consultants Missions' to Georgia. The first stage has been the projects analysis stage, in which the "existing situation" has been assessed to develop a vision of the 'project contents' and the work plans under implementation in the projects. The second stage has been the Log-frame building process to come up with each of the Projects Log-frame and finally with a Unified Log-frame. All matrixes reflect the process / output /outcome level to the projects objectives' and the PHC Program Goal.

4.3. Project Log-frames

As indicated in the previous sections, the financing and development of the PHC program includes the direct participation of a number of Multi and Bilateral funding agencies, as is the case of DFID, the World Bank, the EU, and USAID. This section provides a brief overview of their main activities in order to present each project's Log-frame and an overall logical framework. **The full log frames are included an excel sheet which is part of this document due to the fact that many of the tables contain too much information to read in Word.**

4.3.1. DFID and Oxford Policy Management

The DFID project objective is to support the GoG in the Primary Health Care Development reform, and it will last 5 years. It started in 2003 and it is envisaged to finalize in the year 2008. A grant of £5 million (equivalent to 7,166,876 US $) will finance the planned activities. The project intervenes only through technical assistance and has contracted the firm Oxford Policy Management (OPM) to support the MoHLSA in the implementation of activities.

Project Objectives

❑ Informing primary healthcare policy development
❑ Supporting change
❑ Being responsive to the new government's reform agenda and emerging needs

Although the focus of the project is on primary health care, OPM has realized that PHC reforms cannot be devised in isolation from the constraints facing with a wide health sector approach. A consultation process has identified technical issues that need to be addressed, which were not fully recognized earlier; for example, the need to improve health budget management efficiency. In addition, OPM is aware that the process of assisting the government to articulate possible health sector futures is almost certain to identify new areas of work and policy development that are critical to the success of the reforms.

Project structure

In its response to the DFID Terms of Reference, OPM proposed a project structure consisting of six work streams to reflect the six outputs specified. Under each work stream a set of activities will produce a given output. In the light of consultations, the project structure has been revised to focus initially on four related activities judged to be of highest priority at the present time:

Finance and Policy

The objective of this work stream is to assist the government to develop, modernize, and manage a financing system that drives an efficient funds allocation in the health sector. The focus is on primary health care but, since health financing policy is a system-wide function, the modernization of the financing system will have a positive impact on the whole health sector.

Human Resource Development

The objective of this work stream is the transformation of the health workforce to deliver good quality primary healthcare services efficiently and equitably. At its core, is the need to rebalance the supply of human resources in the sector with an affordable demand for their services, to create institutional arrangements that will provide new incentives for productivity and quality, and to retrain the workforce with the skills required to deliver high quality primary health care.

The institutional and policy environment for human resource development needs to be addressed before proceeding to the technicalities of workforce planning, training, and development. No reform is successful unless the key players in the implementation are fully aware and capable of supporting it. This is required to inform education and training investment decisions and decisions about licensing, accreditation, payment regimes, and regulatory arrangements.

Health Management Information Systems

Information capture, processing, and analysis capacity in Georgia is generally weak and a regular practice to use information for the decision making process is still under used. One of the activities under the HMIS work stream is to initially develop managers' understanding of the usefulness of information to support their management decisions. As a result, the strategy underlying the implementation of this work stream is to first assist Georgia to develop a management culture within the managers groups, and then to use information for policymaking and management. Once this has been achieved the development and implementation plan for the HMIS system, that will serve their needs, should be completed as well.

The OPM-DFID and the World Bank have planned activities for the development and implementation of the system, and an agreement has been reached between both parties to sequence the work. OPM is identifying PHC managerial information requirements and is developing the systems specification to do its piloting. It will also develop training tools and methods, prior to the nationwide implementation of the system from 2007. The World Bank will procure hardware, software, and materials.

Information, Education, and Communication

Traditionally, the MoLHSA was seen as inaccessible and uncommunicative. Health service personnel felt alienated from policy setting, and they were poorly informed about health practices. The primary care seeking behavior of Georgians now tends to be directed toward hospitals or informal systems, advice from friends or relatives, doctors they know personally, pharmacists, and traditional healers.

The objective of this work stream is to support the government in aligning key groups' behavior with its vision for the health sector under the new scheme. Three strategic approaches will be employed:

- Public relations and advocacy

- Negotiation for change and improvements

- Social marketing for health behavior change

The development and implementation of the IEC strategy will be oriented for the following segment of the population: policymakers and key influential opinion leaders, health service managers and health service providers, and the general public.

4.3.2.   European Union

The EU project to support the PHC reform is in line with the Strategic Health Plan of Georgia and the priorities identified in the Economic Development and Poverty Reduction Program of the Georgian Government.

A project with a 7.5 million Euro grant is supporting the Primary Health Care development, comprising of technical assistance at national and regional levels, as well as investments in a pilot region (Kakheti Region, Eastern Georgia). The project is addressed to refurbish existing PHC infrastructure, provision of equipment, and training of PHC facility staff. The Project aims to enhance the capability of the PHC network to meet the health needs in the Kakheti Region through sustainable, accessible, and affordable healthcare services. Moreover the project aims to increase the capacity of local communities to make informed healthcare decisions, promote their

active participation in the healthcare process, and mobilize their resources to create a more sustainable healthcare infrastructure.

One of the priorities for the development of Primary Health Care is the reform of the health care financing system toward sustainable financing of the primary care services. The EC has financed the *Assessment of the healthcare financing system and healthcare management in Georgia*, on healthcare financing mechanisms, on the institutional setting for public healthcare financing, and on delivery, as they currently exists and operate. Furthermore, the EC has provided recommendations for pro-poor policies and healthcare finance reform. Following the assessment and an intensive period of consultation and consensus building with all stakeholders, the Terms of Reference for EC assistance in this field at national and regional level was developed.

Through the preparation of the Regional Master Plan there were answers on what, how, where, and when to invest in the Kakheti region. This was the first phase of EU/DFID/WB efforts to assist the government in the development of the National Master Plan for the PHC sector in Georgia.

The national planning process, considering the Kakheti exercise as pilot, started in Imereti region and included an inventory and evaluation of the current resources. This has lead to a similar assessment in all regions of Georgia to eventually define the number of PHC facilities, health personnel, resources, and activities required countrywide.

COMMISSION OF THE EUROPEAN UNION

PHC PROGRAM IN GEORGIA

LOGFRAME MATRIX

PROJECT DESCRIPTION	PERFORMANCE INDICATORS	Means of Verification	Assumptions/Risks
GOAL	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	
Improve overall level of health status and distribution of health gain in the population	Increased health expenditures on primary health care > Effective primary health care policies implemented > Increased proportion of population satisfied with the health system	> Household Survey > MOH health services coverage statistics > National Health Accounts > Impact Evaluations	
PROJECT PURPOSE	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
Support the implementation of a sustainable model of Primary Health Care in the areas of Health Care Financing; Workforce development /re training; Health Information and education	> Effective and sustainable model Service delivery and utilization improved > Reduction in infant Mortality and Morbidity reduced > Infectious diseases reduced > people with access to a basic, predefined, package of health service in equal conditions.	Health Management Information System Monitoring & Evaluation Reports > Impact assessments > Satisfaction Surveys	> No major economic, political and / or social crises > Government continues committment to reform program > General support form the population
COMPONENT OBJECTIVES	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
> To Improve financial access to good quality health care, especially for currently under-served persons	% of all PHC clinics operating as individual legal entities > Share of total public health expenditure allocated to PHC increases	> Baseline and follow-up household and facility surveys. > MoLHSA records > PHU Reports > Client Satisfaction Surveys > M & E Unit Reports > EU Mission reports > Beneficiary assessment > Impact Evaluation	> No major economic, political and/or social crises > Government continues committment to reform program
> To improve coverage and utilization of quality primary health care (PHC) based on a model of Family Medicine General Practice especially for the poor and disadvantaged	Reduced burden on families of out-of-pocket health expenditures.		
To improve Population information access and decision making on choices on Health Services and behaviour	By the end of the project Healthier lifestyle choices by the population and improved disease prevention functions in the health system.		new legislation /norms approved opportunely
To improve the Basic infrastructure and equipment conditions, to support the delivery of good quality PHC services to the Population of Georgia	Share of all PHC facilities in the Kakheti Region involved in restructuring process (closure and/or reconstruction) > Increase of the % of people who seek care first at PHC level by the end of the project > Improved client satisfaction		
PROJECT OUTPUTS	**PERFOMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
A New solidarity strategy will have been developed and is under implementation	> Financial constraints to accessing health services reduced		> Counterpart funds are available opportunely > Tbilisi municipality's committment to the PHC program continues > Sufficient incentives are in place to attract health
New financial mechanisms and administrative processes will have been developed and are under implementation	Primary Health Care services delivered at the national level under the new financial scheme		
A regional health financing master plan will have been developed and it is under implementation			
Sustainable training programmes on health insurance management will have been provided	By the end of the project 100 retrained PHC teams providing qualified services to an estimated population of # which represents % of the total Kakheti Region population		> Existing health care financing mechanisms to support referrals do not change.
The MoLHSA will have built supportive environment through an Education and Communication strategy (IEC) to introduce a new health insurance policy and practices;	A well designed IEC strategy is underway, informing the Georgian Population about the benefits of the PHC model being implemented	> Medical Statistics reports > M & E Reports	> The PHC Reform has support from the Post-Graduate Medical Academy
Study tours to one or two countries in transition (or new EU member states) and in one "old" EU country are implemented.	By the end of the project the IEC has promoted the PHC effectively reaching at least 90 of the target population	> Promotion Campaign Materials > Beneficiary assessment > Focus groups > In depth interviews > Beneficiary Assessment	> Government committment to PHC reforms continues strong
Technical specification of necessary equipment and software will have been prepared.	# of procurments to provide good quality equipment to at least 57 refurbished center in Kakheti Region	> Promotion Campaign Materials > Beneficiary assessment > Focus groups > In depth interviews	> McLHSA has a Human Resources performance assessment in place
Up to 57 PHC Health Facilities will have been refurbished and equipped	By the end of the project 57 refurbished, equipped and staffed are supporting the delivery of good quality services in the Kakheti Region		> Municipalities allocate the committed per capita budget
The Kakhetian Communities will have been informed and educated about key health issues	By the end of the project the Kakheti population make informed decisions on health		
To improve the capacity and performance of the SSUF, in order to ensure that national health insurance benefits the poorest sectors of the population.	By the end of the Project the SISUF structure performs efficiently		

4.3.3. The World Bank

In July 2003, a second loan for an amount of 20.3 million US $ has been secured by the GoG from the World Bank to help finance the development of its PHC sector reform over a period of five years. The main objective of the PHC Development Project is to improve the coverage and utilization of the quality PHC based on the model of the family medicine/general practice, with an emphasis on reaching the poor and disadvantaged. The project contains three components:

- PHC service delivery;
- Institutional development;
- Project management.

Key components of the Project include the: a) refurbishment/rationalization of PHC facilities in selected parts of the nation; b) the provision of essential PHC equipment to support the refurbished facilities; c) the development of national policies to support the initiative; d) the development of an improved national healthcare financing system that will provide sustainability for the PHC function; e) the establishment of an Health Management Information System (HMIS) capacity that will meet the prioritized needs of the evolving PHC function, while playing into the long-term information needs of the entire sector; and f) a supportive but highly targeted Information Education for the general audience.

The decision to phase the Project was driven by the fact that the implementation of PHC in urban areas is complex and will require downsizing and restructuring. In addition, the healthcare financing arrangements in urban areas need to be improved. Expansion of PHC services to urban areas during Phase II is partly contingent on the GoG demonstrating to IDA progress in both these areas.   In addition, there is need to build political commitment and support for PHC reforms in urban areas where the majority of specialists are based. This is best achieved through incremental change and the implementation of pilot programs that can demonstrate success.

COMPONENT 1: PHC SERVICE DELIVERY (Estimated Costs: US$ 15.23 million total, including contingencies)
The objective of this component is to support the phased development of PHC services in urban and rural areas of Georgia through rehabilitation of facilities and provision of basic medical and office equipment. It will be implemented in two Phases. During **Phase I,** the proposed Project will support development of PHC clinics in up to 74 rural and high mountain areas and one urban PHC referral pilot (described below). The identification of health facilities to be developed under **Phase II** is dependent on the accomplishments under Phase I and the lessons learned from the urban pilots. In addition, GoG will have to successfully demonstrate to IDA adequate progress on healthcare financing reforms and facility and health personnel rationalization. If these conditions are met during Phase II, the proposed project would support expansion of PHC services in urban and other rural areas of Georgia. If that is not the case, then the proposed

project will only support expansion of PHC services in other rural and high mountain areas. Component 1 consists of three sub-components:

Sub-Component 1.1: Establishing PHC Clinics in Urban and Rural areas

Sub-Component 1.2: PHC Referral Pilot
Sub-Component 1.3: Community based Information, Education, and Communication (IEC)

COMPONENT 2 - INSTITUTIONAL DEVELOPMENT (Estimated Costs: US$ 7.29 million total, including contingencies)
The overall objective of this component is to support capacity building and institutional development in training, policy framework and regulatory environment of PHC, and the management of PHC services, especially through an integrated health management information system (HMIS). Key government institutions to be involved in this component include: the Public Health Department of the Ministry of Labor, Health and Social Affairs (MoLHSA), and the Family Medicine Faculty in the Post Graduate Medical Academy. This component consists of four sub-components:

Sub-Component 2.1 – Capacity building for PHC Training
Sub-Component 2.2 – Capacity building in the Management of PHC Services:
Sub-Component 2.3: Strengthening Health Management Information Systems for PHC
Sub-Component 2.4: Support for PHC Healthcare Financing Reforms

COMPONENT 3 - PROJECT MANAGEMENT SUPPORT (Estimated costs US$ 1.24 including contingencies)
The objective of this component is to support project implementation by ensuring that: (i) projects are well-coordinated; (ii) issues affecting or potentially affecting project implementation are identified in a timely manner; (iii) there is a sound technical basis for project activities, developed in accordance with requirements of the project beneficiaries; (iv) necessary project inputs are provided in a timely efficient manner; (v) project resources are appropriately managed in accordance with Bank requirements for procurement and financial management; (vi) effective project monitoring and progress reporting is carried out; and (vii) there is systematic outreach to various stakeholders to promote the transparency project activities and achievement of project objectives. To achieve this objective the component supports the development and functioning of the Health and Social Project Implementation Center. The project will support: (i) international and local technical assistance in project management design and maintenance; (ii) training in procurement and financial management; (iii) participation conferences and project component study tours; (iv) salaries of the consultant staff that work full or part-time on the project in the Health and Social Project Implementation Center (HSPIC); (v)equipment for the additional staff, including a computer server, workstations, printers, copier, and communication equipment; (vi) rehabilitation of new, expanded office space; and (vii) incremental operating expenses of the HSPIC, including communication costs, banking fees, transportation supplies, office security systems, equipment maintenance, and tender and other advertisements, in travel of the HSPIC staff for the purposes of carrying out project monitoring and audit fees.

WORLD BANK PROJECT — **LOGFRAME MATRIX** — **PHC PROGRAM IN GEORGIA**

PROJECT DESCRIPTION	Performance Indicators	Means of Verification	Assumptions/Risks
GOAL	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	
Improve overall level of health status an	> Geographical and Financial barriers to accessing health services reduced > Increased health expenditures on primary health care > Effective primary health care policies implemented > Increased proportion of population satisfied with the health system	> Household Survey >MOH health services coverage statistics > National Health Accounts > Impact Evaluations	
PROJECT PURPOSE	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
Improve access, equity and quality of health Care through improvements in the financing system aimed at shifting the large amounts of out of pocket spending to more efficient and equitable risk pools, improve the Basic benefits Package and support the GoG in the development and implementation of a new system of Primary Health Care	> Geographical and Financial barriers to accessing health services reduced > Increased health expenditures on primary health care > Effective primary health care policies implemented > Increased proportion of population satisfied with the health system	> House Hold Surveys >MoLHSA heath services coverage statistics National Health Accounts > M & E Unit Reports > Impact Evaluations	> No major economic, political and / or social crises > Government continues commitment to reform program > General support form the population
COMPONENT OBJECTIVES	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**ASSUMPTIONS/RISKS**
>To improve the competence of the public officials to manage the Health Sector more efficiently and effectively > To increase the use of information and improved analysis capacity for policy making and managerial decisions > To improve financial access to good quality health care, especially for currently under-served persons > To develop healthier lifestyle choices by the georgian population and improve disease prevention functions in the health system. > To generate public support to ensure sustainability of changes in the Health Sector. To improve the Basic infrastructure and equipment conditions, to support the delivery of good quality PHC services to the Population of Georgia	> Approximately 50 percent of the population with access to a PHC clinic within 30 minutes of walking/other transportation Population with access to PHC services completing at least three visits per capita per year cases managed at the PHC level > 20 percent increase in the proportion of infants in the population that receive immunization (DPT3) on time > 50 percent increase in the proportion of pregnant women who have had at least 4 prenatal visits > 50 percent increase in the proportion of adult patients seen in refurbished PHC clinics for whom blood pressure is recorded in patients' medical records > Improved knowledge and practice of practices related to health lifestyles (smoking, diet, wellbeing check-ups) > Quality of Clinical Services	> Baseline and follow-up household and facility surveys > MoLHSA records > PHU Reports > Client Satisfaction Surveys > M & E Unit Reports > WB Mid Term Review	> Government strongly committed to implement the Reform > Government allocates necessary counterpart funds to project implementation > General support of the population to the PHC Reform implementation
PROJECT OUTPUTS	**PERFOMANCE INDICATORS**	**MEANS OF VERIFICATION**	**ASSUMPTIONS/RISKS**
SERVICES AND TRAINING			
The Master Plan for Laboratories will have been developed and implemented	> By the end of Y3, the quality of services is improving > The laboratories are licensed and have contractual arrangements with PHC facilities > Cost efficiency in Lab network increases by %	> Project Management reports > WB regular supervision Missions reports Public /Community /Opinion surveys > IEC campaign materials > Consultants Reports > M & E Unit Reports	> General support of the population to the PHC Reform implementation > Counterpart funds are available opportunely > Tbilisi municipality's committment to the PHC program continues
The Kutasi Perinatal Center Staff will have been trained	By the end ofY3 the quality of services improves and the % of client satisfaction is high		> Sufficient incentives are in place to attract health care providers to primary care
The PHC teams will have been trained in family medicine	>By the end of the project x % of providers trained in family medicine actually practicing family medicine		> Sufficient incentives are in place to attract consumers from secondary and tertiary level to primary care level
Tthe IEC Strategy for the Regions of Kakheti, Imereti and Adjara would have been implemented	> By the end of Y2 the IEC comprehensive strategy Plan starts reaching the target population. > The % of the population awareness and support to the reform increases > The effectiveness of the IEC drives to a Healthier General Lifestyle of the Georgian Population		> Existing health care financing mechanisms to support referrals do not change > The PHC Reform has support from the Post-Graduate Medical Academy
A FMF Business Plan will have been developed and implemented	> By the end of Y3 the implementation of the BP, improves key areas of the Health Sector		> Government commitment to PHC reforms continues strong
Key Ministry Personnel participating in Study Tours will have been trained	>Throughout the life of the project good practices from other countries are disseminated, thus increasing the support of the Reform		> MoLHSA has a Human Resources performance assessment in place
The GPs , Nurses and Managers in the Imereti and Adjara Region will have been trained	> By the end of Y3 the quality of services has improved and the % of client satisfaction reaches a % of ##		> Municipalities allocate the committed per capita budget
The Family Medicine Faculty will have been established and ,staffed with trained personnel	> By the end of Y3, the quality of services is imnproving and client satisfaction reaches a % of ##		
Thsi Health management Program will have been approved by the MoLHSA for implementation	> The management capacity imrproves by the end of Y3		
The Basic medical and nursing education reform strategy will have been approved by the MoLHSA	> Basic medical and nursing education reform strategy developed, approved by the enf of		
The PHC Staff training Program in Family Medicine would been prepared and approved by the MoLHSA	> # of Doctors Nurses and Managers have been retrained		
A Master Plan for the PHC in the Imereti and Adjara Regions will have been approved and is under implementation	> By the beginning of Y3 the Master Plan is under implementation		
The Revision of the Legal framework for PHC/GP/FM will have been completed	> By the end of Y4 a new legal framework is in place		
The CMIS staff performance will have been trained			
The Health Policy Unit will have been strengthened and the analysis capacity improved	> The quality of analysis and policy making improves > The M & E of the Reform improves the decision making process		
GOODS AND WORKS			
The PHC Infrastructure will have been fully refurbished and equipped (Medical, office, transportation and communication equipment)	> By the end of the project at least 133 refirbished and equipped facilities are fully operational improving the the overall quality of services; > The clients satisfactory increases by % > number of registered people per facility	> Project Management reports > WB Regular Supervision Missions > MoLHSA reports	> Government and funding agencies disburse the committed budget opportunely > The Project Management performs efficiently(committed, teamwork oriented, performance results oriented, professional team informed) > The Implementing agencies have in place good coordination mechanisms
The Laboratories infrastructure will have been fully refurbished and equipped ,(Medical, office equipment)	By the end of Y3 2-3 Referral labs refurbished and equipped Labs have been licensed and have contractual arrangements with district PHC facilities >% of client satisfaction with quality of services		
The Kutasi Hospital perinatal infrastucture will have been refurbished and equipped	% of client satisfaction with quality of services		
The Regional Family Medical training Centers will have been refurbished and equipped	% of client satisfaction with quality of services		
The Center for Medical Disease Control and Medical Statiscal Center will have been refurbished and equipped	# staff is working in good conditions		
The Health Policy Unit offices will have been refurbished and equipped	# staff is working in good conditions and it has the necessary means to improve the performance and quality of services		
The Family Medicine Faculty will have been equipped	% of client satisfaction with quality of services		
PROJECT ACTIVITIES / PROCESSES	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
Train the Staff of the Kutasi Perinetal Center and PHC team in the referral system			
Implement the Information,Education and Communication strategy			
Train Family Medicine Faculty			> Government and funding agencies disburse the committed budget opportunely > The Project Management performs efficiently(committed, teamwork oriented, performance results oriented, professional team informed) > The Implementing agencies have in place
Prepare and implement Study Tours			
Revise and update the FM Residency Program curricula			
Revise the Health Management Residency Program		> Work plans > Project management reports on physical and financial progress > WB Supervision Mission Reports	
Prepare recommendations to improve the Education Reform Policy for undergraduate and nursing			
Prepare the PHC Staff training Program in Family Medicine	**All inputs and processes performed under the yearly workplan,related with each main line of activity to produce the outcomes**		
Prepare the PHC Master Plan			
Revision of Legal framework for PHC/GP/FM			
Strengthen the CMIS staff through workshops and training activities			
Strenghten of the HPU capacity			
Strenghten the GHSPIC Staff capacity			
WORKS			
Re-design and re-habilitation of Infrastructure of 133 PHC facilities			
Reburbish the infrastructure of 2-3 Laboratories (Imereti-Adjara)			
Refurbish the infrastructure of Kutasi Hospital Perinatal			
Refurbish the infrastructure of the Regional Family Medicine Training Centers (Adjara & Imereti)			
Refurbish the Family Medicine Faculty			
Rehabilitate the Infrastruct. of the Center for Disease Control and Medical Statistics Center			
Refurbish the Infrastructure of the Health Policy Unit			
Refurbish of the Infrastructure of the GHSPIC Offices			
GOODS			
Provide Equipment to PHC Facilites from the year 2005 to 2007			
Provide Equipment to Regional Laboratories			
Provide of vehicles to the PHC			
Provide the radio communications equipment to the PHC			
Provide the medical and office Equipment to the Kutasi Referral Pilot Hospital			
Provide the Equipment of Regional Family Medical Training Center (Imereti-Adjara)			
Provide the Equipment to the Family Medicine Faculty			
Provide the Equipment to the Center for Disease Control and Medical Statics Center			
Provide the Equipment to the Health Policy Unit Offices			
Provide the Equipment to the GHSPIC offices			
Project Inputs		> Work plans > Project management reports on physical and financial progress > WB Supervision Mission Reports	> Government and funding agencies disburse the committed budget opportunely > The Project Management performs efficiently(committed, teamwork oriented, performance results oriented, professional team informed) > The Implementing agencies have in place good coordination mechanisms > The MoLHSA is committed to the PHC implementation reform
	INPUTS (budget for each component) >**PHC Service Delivery** US $ 16.2 million > **Institutional Develop.** US $ 7.1 million > **Project Manag.** US $ 1.5 millionTotal budget for project implementation, # of consultants, # of procurement processes, nr of contracts		

4.3.4. USAID

Recently, GoG has received significant support from USAID for a total grant amount of US$ 7.0 million to support the implementation of Health Care Reform in the country. The Project will be implemented in two phases with two years for the first phase and three years for the second one. The key components for the first phase of the project are:

- Health Policy and Financing,
- Organizational development of MoLHSA,
- Reproductive Health and National Health Account.

The **Cooperation in Health Systems Transformation Project** (CoReform) provides technical assistance to the **Government of Georgia** to build its capacity to transform the country's health system into one that is more efficient, accountable, and transparent. With overarching ownership from the **Ministry of Labor, Health, and Social Affairs** (MoLHSA) and funding from **USAID/Caucasus**, the CoReform project is designed to provide assistance to the government of Georgia to improve its health care financing system, support reproductive health and family planning policy development, establish and institutionalize national health accounts, and strengthen the organization and management of health policy institutions at the national level.

Goal of the Co Reform Project

Provide technical assistance to the Ministry of Labor, Health, and Social Affairs to:

- ➤ Identify gaps in healthcare policy with particular emphasis on healthcare financing and reproductive health and family planning policy
- ➤ Effectively reform public and private health financing policy and models of healthcare delivery and financing;
- ➤ Improve transparency and accountability in healthcare costs and management.

To promote the central goal of the project, the team's strategy is to assist the MoLHSA to develop its **macro vision for the healthcare system**, build the **institutional foundations and capacity** to carry the reform process forward, and create **mechanisms to generate evidence** to support health policy decision making. The project will focus on **building local capacity and leadership** in health policy development and laying the foundation for implementing reforms through **coordinated donor activities**. Specifically, the team will support activities that contribute to developing a national integrated health financing strategy, rationalizing secondary health care, improving resource allocation for reproductive health and family planning programs, expanding successful community-based health financing schemes, and developing innovative public-private partnerships in the healthcare sector.

It is envisioned that the entire Georgian population will benefit from this project, as effective implementation of health policies and reforms **ease the burden of healthcare costs** and **increase the access to essential health services**.

CARE International has specific responsibility for implementing the component of the project related to family planning and reproductive health policy in Georgia. The main mechanism for achieving reproductive health policy objectives is support for a national level policy working group. The activities of this working group have been designed to achieve the following goal and supporting objectives:

Goal : Improved legislative, regulatory, and policy framework for increased supply and demand for quality reproductive health services

Supporting Objectives:
- A medium-term RH/FP Strategic National Action Plan for a comprehensive and consistent approach to RH/FP needs;
- Improved access to RH/FP services through integration with the primary care level;
- Institutionalized Georgian capacity to analyze and address reproductive legal, regulatory, and policy issues regarding health care;
- Improved information and data analysis capacity on contraceptive supply and use, abortion practices and rates, maternal health, and other RH/FP indicators;
- Improved logistics management for more efficient procurement and distribution of contraceptives; and
- Local capacity to design public awareness and public participation strategies aimed at reducing abortions and increasing use of modern contraceptive methods.

USAID CoREFORM	PHC PROGRAM IN GEORGIA		
LOGFRAME MATRIX			
PROJECT DESCRIPTION	Performance Indicators	Means of Verification	Assumptions/Risks
GOAL	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	
Improve overall level of health status and distribution of health gain in the population	Improve the extent to which the health system satisfies the legitimate expectations of the population, and the equitable distribution of this	> Household Survey > MOH health services coverage statistics > National Health Accounts > Impact Evaluations	
PROJECT PURPOSE	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
Build the capacity of Georgia to transform the country's health system into one that is more efficient, accountable, and transparent	> Financial constraints to accessing health services reduced > Increased health expenditures on primary health care > Effective primary health care policies implemented > Increased proportion of population satisfied with the health system	> House Hold Surveys >MoLHSA heath services coverage statistics National Health Accounts > M & E Unit Reports > Impact Evalautions	> No major economic, political and / or social crises > Government continues committment to reform program > General support form the population
COMPONENT OBJECTIVES	**PERFORMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
To establish the Government of Georgia's ownership of health financing reforms and policy development		> Baseline and follow-up > MoLHSA records > PHU Reports > Client Satisfaction Surveys > M & E Unit Reports > USAID Mission Reports > Household and facility surveys	> No major economic, political and / or social crises > Government continues committment to reform program > General support form the population
To develop and institutionalize the National Health Accounts			
To strenghten the Organizational and Human Resources of the Health Sector to improve he overall quality of service			
To improve, establish and institutionalize the National RH/FP Policies			
PROJECT OUTPUTS	**PERFOMANCE INDICATORS**	**MEANS OF VERIFICATION**	**Assumptions/Risks**
Health Financing Reforms and Policy Development			> General support of the population to the PHC Reform implementation
Synthesis report based on secondary data and analysis will have been completed	A set of reports based on secondary data are produced		
The Capacity to design, implement, and evaluate health financing policies that are responsive to health financing and policy requirements will have been strenghtened	By the end of Y1 , at least 4 staff are responsible for development and analysis of Health Policy at the HPU and it is fully operational		
Policies and Laws aimed at improving HCF will have been discussed, approved and issued by the MoLHSA	By the end of the project # of new Laws and policies have been approved and are under application		> Tbilisi municipality's committment to the PHC program continues
Develop and Institutionalize Health Accounts		.	> Sufficient incentives are in place to attract health care providers to
The National Health Accounts based on improved technical statistical tools will have been integrated into the national accounts system	By the end of Y1 improved technical statistical tools are integrated into the national accounts system		> Existing health care financing mechanisms to support referrals do not change.
The Initial National Health Accounts tables will have been produced	By the end of Y1 a first set of tables based on available data have been produced	> MoLHSA records > PHU Reports > Client Satisfaction Surveys > M & E Unit Reports > USAID Mission Reports > Household and facility surveys	> The PHC Reform has support from the Post-Graduate Medical Academy
National Health Accounts in policy dialogue and advocacy will have been used	A permanent working group has been established to promote policy dialogue and advocacy		> Government committment to PHC reforms continues strong
National RH / FP Policies			> MoLHSA has a Human Resources performance
The Georgian National and Regional individual analytical capability will have been improved to find appropriate solutions			> Municipalities allocate the committed per capita budget
Support for policy recommendations that advocate for RH/FP services will have been achieved			
A defined approach for data collection on contraception, abortion and other R.H which complements UNFPA and JSI will have been put in place	By the end of Y2 a scheme of data collection has been developed and approved		
A more efficient procurement and distribution of contraceptives will have been achieved through the improvement of the logistics management	Starting Y2 of the project the Percentage rate of distribution and economy and transparency in the procurement improves		
Organizational Development			
The Organizational structure and management of GoG Health Policy Insititutions will have been improved	By the end of the project # of new Laws and policies are under application		
The Interagency coordination will have been improved	# of coordination meetings to follow-up on workplans, improving results		

GOAL

Improve overall level of health status and distribution of health gain in the population

PROJECTS PURPOSE

COMPONENT OBJECTIVES

PROJECTS OUTPUTS

SERVICES AND TRAINING

Health Financing Reform and Policy Development

Develop and Institutionalize Health Accounts

Reform PHC/EP Policies

Organizational Development

GOODS AND WORKS

PROJECT ACTIVITIES / PROCESSES

INPUTS

GOAL

Project Purpose

Component Objectives /outcomes

Outputs

MEANS

5. Link to Monitoring and Evaluation

The horizontal logic of the matrices presented in the previous section helps to establish the basis for monitoring and evaluating the project. The link between the Log-frame and monitoring review and evaluation is illustrated below:

The Log-frame, and monitoring and evaluation		
Log-frame hierarchy	**Type of monitoring and evaluation activity**	**Information Level**
Goal	Ex-post evaluation	Outcomes/impact
Purpose	Evaluation at completion and ongoing review	Outcomes/effectiveness
Component Objectives	Ongoing review	Effectiveness and sustainability
Outputs	Monitoring and review	Output
Inputs / processes	Monitoring	Input/Outputs

At first glance one can tell that this is a simplified framework, and it needs to be applied and interpreted in a properly and flexible manner. For example, ex-post evaluation will include some element of assessing whether or not *the purpose, component objectives, and outputs* have been achieved, as well as a review to assess performance in output delivery.

The development of a monitoring and evaluation (M&E) framework determines whether the instruments and mechanisms developed for the implementation and achievement of the previously mentioned Primary Health sector goals were valid. The purpose of monitoring the Primary health sector and the specific projects is to determine at what point the reform is effective in improving the levels of *equity, effectiveness and quality, efficiency, financing sustainability, and community participation of the health sector's systems and services.*

In addition, the M&E framework should help to examine, as far as possible, the impact or effects of each of the elements of PHC, in order to recommend how future evaluations, in relation to the objectives of the project, can be undertaken. Furthermore, the framework will help to draw whatever conclusions are possible, in relation to the implementation of the PHC and future efforts by the Government of Georgia, to provide universal coverage to the population.

The evaluation and monitoring of the programmed activities is intended to promote learning and accountability by identifying what works and what doesn't, by disseminating lessons of experience; to evaluate global development effectiveness in terms of the results of the PHC projects; to progress toward sound implementation of agreed policy reforms and institutional development objectives; to emphasize the utilization of evaluation results to strengthen the PHC capacity; and to achieve closer links between resource management and evaluation.

6. Basic Elements of Evaluation and Monitoring[2]

Monitoring and evaluation (M&E) is increasingly recognized as an indispensable tool of project management. The acknowledged need to improve the performance of the Primary Health System calls for close attention to the management of information, both to support the implementation of the project and to feed back into the design of new initiatives in the Government of Georgia's health reform programs.

6.1. A Better Understanding of Monitoring and Evaluation

Effective M&E is based on a clear, logical pathway of results, in which results at one level are expected to flow toward results at the next level, leading to the achievement of the overall goal. If there are gaps in the logic, the pathway will not flow toward the required results. One of the most difficult issues related to the development of an M&E framework is precisely the attribution of results to a specific input or activity. The establishment of causality is possible usually under scientific designs, which are described later on this section. Nonetheless, the development of a coherent framework can provide valuable insight for policymakers and politicians regarding the direction of PHC health reform in Georgia

The major levels to be considered in the development of any M&E system are:
 ➢ inputs
 ➢ outputs
 ➢ outcomes
 ➢ impacts

Table 1: Major levels of the M&E framework

Level	Description
Inputs ⟶	People, training, equipment, and resources that we put into a project, in order to achieve outputs.
Outputs ⟶	Activities or services we deliver in order to achieve outcomes. The direct result of the implementation of the activities comprising the project's components and sub-components. The processes associated with service delivery are very important. The key processes include quality, unit costs, access, and coverage.
Outcomes ⟶	The effects of the project outputs that are defined in terms of the objectives of the project. These should be measurable and occur during the life of the project ("outcome")
Impacts ⟶	These outcomes, reflected generally after the project ends, are the result of project interventions and can be clearly attributable to the project. Generally these impact indicators are linked to improvements in health status, financial risk protection, and consumer responsiveness (as the main three objectives of health systems).

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[2] Veney, James E. and Kaluzny, Arnold D., Evaluation & Decision Making for Health Services, Table 1.1 p.4. Health Administration Press, Chicago, Illinois, 1998.

The previous figure demonstrates a useful scheme to visualize the monitoring and evaluation components from inputs to impact.

The results pathway or cycle, shown in the figure below, may be likened to a pyramid. The higher up the results cycle one goes, the fewer organizations, projects, and studies are involved in M&E. Thus, all implementing partners should collect complete input and output data. Many implementing partners should collect some outcome data. Far fewer implementing partners will collect impact data. The following figure displays an example of the logical framework which will be captured in the M&E system. The example is taken from infant mortality, but the framework is equally applicable to other key performance indicators.

Figure 1: sample M&E Framework
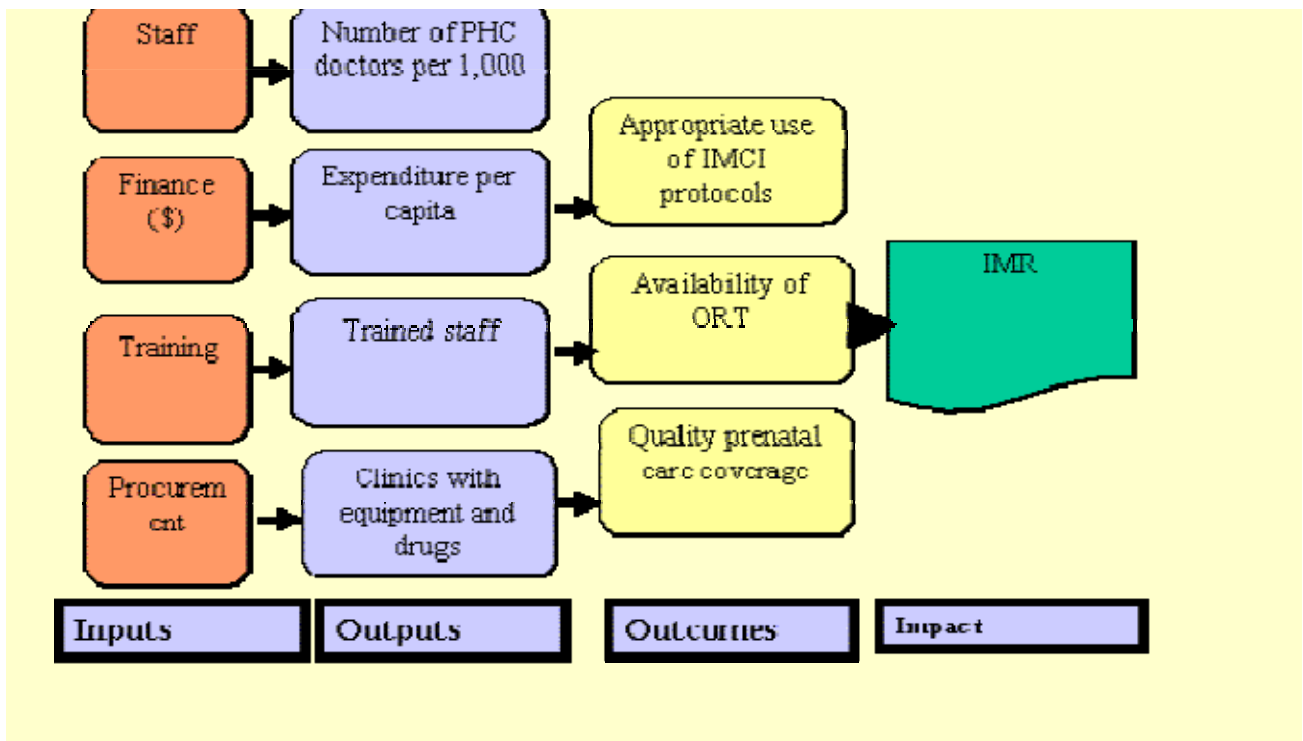
The development of a monitoring and evaluation (M&E) framework seeks to identify whether the instruments and mechanisms achieve the previously mentioned objectives as mandated. The following graph shows the main differences between monitoring and evaluation.

Figure 2: What are the differences between monitoring and evaluation?
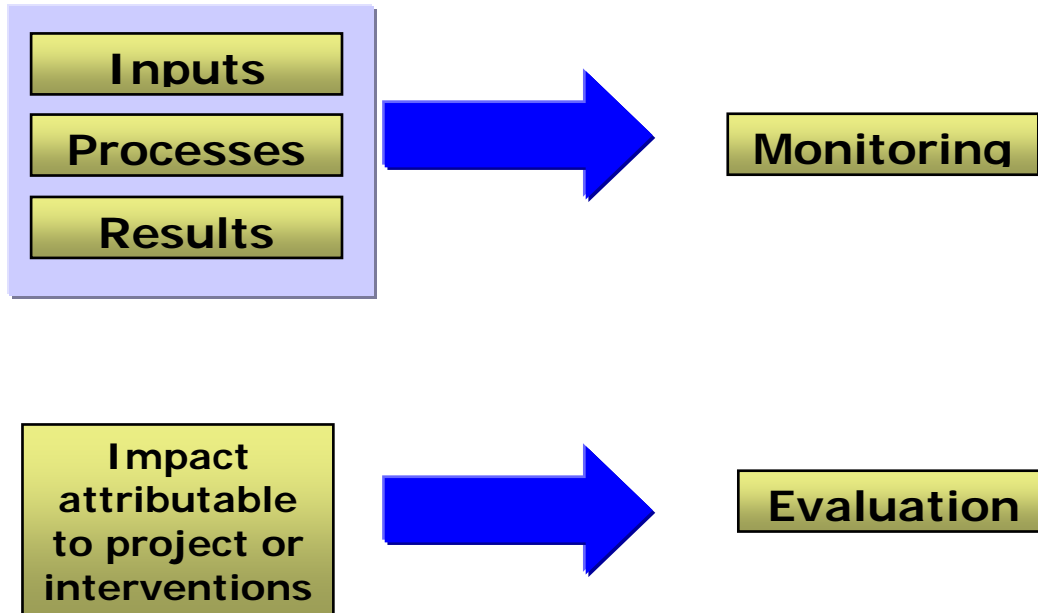
As shown, **monitoring** is concerned with the assessment of how inputs, processes, and results are used and produced during the implementation of the project. The monitoring process is ongoing, encompassing periods that may include monthly, quarterly, or yearly monitoring.

Evaluation, on the other hand, is more concerned with the long-term goals or impact of the project. Evaluations are carried out every two to four years and at the end of the project. In this context, the project evaluation seeks to ascertain what the impact of the project was on the target population and to what extent the objectives were achieved with the invested resources.

The evaluation and monitoring of the programmed activities is intended to promote learning and accountability by identifying what works and what doesn't, by disseminating lessons of experience; to evaluate global development effectiveness in terms of the results of PHC projects; to progress toward sound implementation of agreed policy reforms and institutional development objectives; and to achieve closer links between resource management and evaluation.

The final aspect of an M&E system is to develop clarity regarding the flow of information from data reporting through data analysis. The conceptual framework of the M&E system defines how the system functions at each stage of the value chain and assigns clear responsibility. The following figure shows how the different stages of the M&E system operate.

Figure 3: Value chain in M&E System

Value chain in M&E System

Data capture	Data processing	Data storage	Data Reporting	Analysis

• Manual using forms at community level
• Manual direct observation
• Manual surveying
	• Depend on connectivity
	  ▪ On line
	  ▪ Diskette
	  ▪ Paper
	• Automatically check data consistency
	• Quality
	• Audit
		• Data warehouse
		• Levels of security
		• Distribute info
			• Reporting
			• Export to Excel
			• Export other systems
			• Standardize reports to partners
			• Visual identification of problems / trends
				• Specialized centers analyze impact
				• Researchers with special access
				• External assistance

As shown, the system runs from data capture, to data processing, and then to data storage, data reporting, and finally to analysis. Each of these elements is critical to defining a comprehensive and integrated M&E system. The following sections define in greater detail the theoretical framework for the development of the M&E system.

6.2. What is monitoring?[3]

Monitoring is the continuous and methodical assessment of data throughout a project in order to assist management in the decision making. Good management relies on monitoring for continual improvement of operations and project outputs and outcomes. Monitoring analyses data collected and constantly compares the results with the project expectations. If these do no coincide there is need for modification of the plan, the process, the expectations, or a combination of these.

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[3] Veney, James E. and Kaluzny, Arnold D., Evaluation & Decision Making for Health Services, Table 1.1 p.4. Health Administration Press, Chicago, Illinois, 1998.

Monitoring focuses on permanently providing feedback to the different stages of the project as shown in the following diagram.
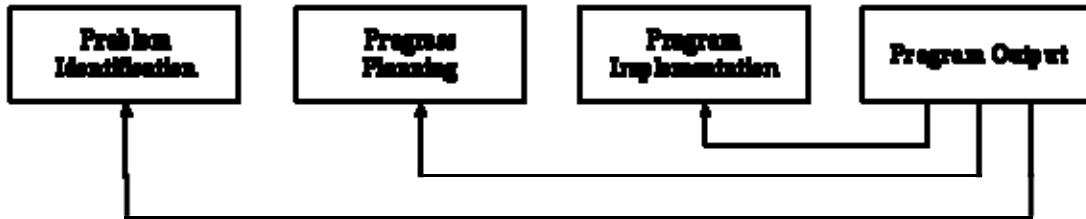
As previously mentioned, monitoring has to do primarily with providing intermediate information for decision making relevant with the adequacy, progress, efficiency, and effectiveness of the interventions. Collecting information during the planning stage helps define if a project is able to adequately address the problem. The continuous assessment of intermediate data during the implementation stage provides information on whether the processes are being implemented, as they should, and if they are producing the expected results in the most efficient manner. Finally, monitoring provides intermediate data on whether the short-term benefits justify the costs.

Monitoring outcomes in health sector programs usually focus on some aspect of health status. Although it is difficult to measure health status, being that there are different ways to measure it, mortality and morbidity rate indicators are most often applied. Data collection for these indicators is more useful for measuring improvements on health status when it is compiled by age and sex. The monitoring of different health status indicators helps determine if the project outcomes are meeting the health project expectations.

6.3. Defining Project Evaluation

Evaluation is a periodic and systematic process that uses quantitative and qualitative methods for the collection, analysis, and interpretation of data. The purpose of this process is to determine the relevance, adequacy, progress, efficiency, effectiveness, impact, and sustainability of the program activities.
The following table defines the evaluation components previously mentioned:

Table 2: Components of an evaluation

Evaluation Component	Definition
Relevance	Evaluation of the appropriateness or equity of a program, or the correspondence between the program and the needs for the program that is based specifically on a prior judgment.
Adequacy	Evaluation of the extent to which a program is likely to be able to address the entire range of a problem that is based specifically on a prior judgment.
Progress	Evaluation of the extent to which scheduled activities occur on time, in the manner expected (e.g., according to professional standards), and at the budgeted cost and the expected outputs produced.
Effectiveness	Evaluation of the extent to which the program has produced expected intermediate outcomes (effects). Assumes a causal connection between the program and the effect.
Impact	Evaluation of the extent to which the program has produced expected ultimate outcomes (impact). Assumes a causal connection between the program and the impact.
Efficiency	Evaluation that assesses the relationship between input and outcome, either intermediate (effects) or ultimate (impacts).
Sustainability	Evaluation of whether a program can capture the needed resources to sustain itself after the withdrawal of external support.

Source: Veney, James E. and Kaluzny, Arnold D., Evaluation & Decision Making for Health Services, Table 1.1 p.4. Health Administration Press, Chicago, Illinois, 1998.

The assessment of these activities may be done through the use of different mechanisms, such as monitoring, case studies, survey research, experiments and quasi experiments, and time series analysis.

Evaluation is useful particularly in terms of validating what is being achieved with the project's implementation and in reorienting the project's design and focus. The purpose of evaluating a project is to continuously gain knowledge of the processes and activities throughout the program, in order to make better decisions within the health program to meet the population's needs. Evaluations may deal with issues, such as adequate resource allocation and utilization (adequacy and progress), or whether the project has made any differences in the Primary health sector (impact). Hence, evaluation aims at responding to in-depth topics, such as the following:

- - - - - ➤ If the problem that was to be solved with the project still exists in the same terms as originally presented
- - - - - ➤ If the program, as originally conceived is still the best alternative to solve the problem
- - - - - ➤ If the project design, objectives, products, activities, inputs, institutional, and management arrangements are still valid and coherent
- - - - - ➤ If the impact on the beneficiaries and the environment have been relevant
- - - - - ➤ If the programming and execution process has been effective
- - - - - ➤ If there are any lessons to be learned

There are three continuous stages to establishing a Primary Health sector performance evaluation process, including the design, implementation, and control. Both the methods and mechanisms of the evaluation must be included in all three stages. The purpose is to develop a plan that meets the needs of the population, measures the progress and adequacy of the activities throughout the sector, and control the results by comparing the outcomes with the expected results.   The following chart explains the relationship between the different stages and the methods of evaluation previously discussed:

Figure 4: Stages of Evaluation
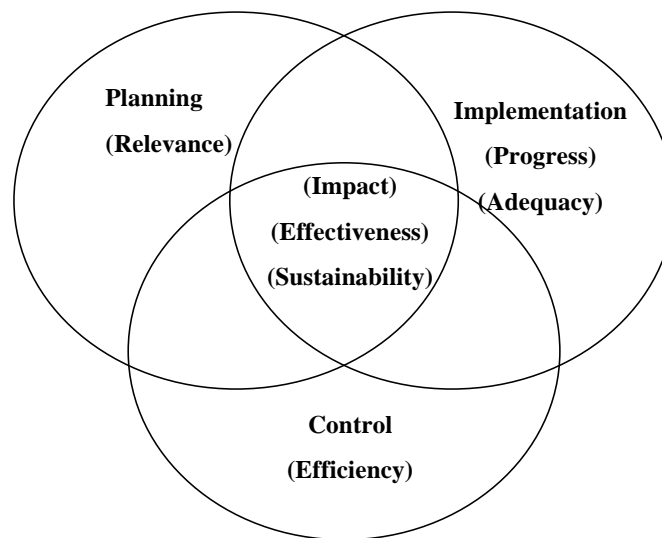
Evaluation is meaningless unless there is a clear definition of the problem to be solved and a clear understanding of the decisions to be made. When a health problem is defined, a project plan along with the evaluation methods and mechanisms is needed.   The project plan is developed to help solve the defined problem.   This is a critical first step of introducing any

performance evaluation process. The results obtained from the evaluation process are aimed at assisting management throughout the different stages, in order to help solve the defined problem.

In addition to understanding the decisions to be made, there should be a clear understanding of the effects of these decisions. Achieving a full understanding of the effects of a health project implies a similar understanding of the actions of the people affected by them. For example, the change of payment system from traditional historical budgeting of hospitals to performance based contracts is expected to improve the efficiency of expenditures. This is supposed to occur by changing the incentives to provide services at lower cost. Will the change actually affect providers' clinical decisions? Will doctors spend less time on patients since the payment is unaffected by extra attention, which costs money? Or will they work longer on each patient to make sure reputations are maintained? Will they resist purchases of expensive equipment whose cost may not be recouped? Will they release patients earlier to save on costs? Will they release them later to maintain a reputation for patient oriented care?

The purpose of incorporating a serious effort on evaluation is twofold. The first purpose deals with the relevance, adequacy, impact, and sustainability of the sector's activities. By keeping track of the successes and shortcomings of the sector's diverse activities, the suitability as a model for extension to the rest of the health system can be appraised. If successful, documentation of achievements can be useful in future discussions about replicating the project in other rayons/regions. If some aspects are not successful, changes can be made in future designs. These results are expected to be valuable in the medium to long term.

The second purpose is aimed at getting results in the short term to evaluate the progress, efficiency, and effectiveness of specific projects, such as the PHC program / projects. With timely information, the program can be kept on track and changes can be made in parts of the system where shortcomings are observed. While frequently considered part of the "monitoring" of the project rather than its evaluation, the collection of relevant information can be used to evaluate the intermediate steps in the project. Does training help in the adoption of the new system? Does the nature of the process for selecting hospital management affect the success of new payment schemes? Advice to administrators of individual GPs can be given on the basis of real experience from early phases of the project or from similar activities across the different projects.

The two purposes of the evaluation strategy may at times be in conflict. They will conflict where early results are used to change the policies being pursued, and there is a less clean distinction between alternative policy options. However, the two goals may be pursued in combination to help managers see the ultimate results of their actions on the public, not merely on their own operations.

The following section describes some of the key analytical tools that can be used to track results in the sector.

6.4. Methods of Evaluation applied (Pretest-Posttest)[4]

With a policy change as extensive as the PHC, the information needed to answer the whole set of possible questions of interest is also extensive and needs to be available in different forms. Some areas already have systems of data collection available as a matter of routine, such as what the Medical Statistics Institute collects regularly. Some require new means of collection, both in the form of systematic survey data collection and in the form of special, focused studies. For questions concerning reasons for an expansion or contraction of PHC, use of public facilities versus private hospitals changes in the health status of the overall population and in labor market effects. The main tool of analysis will likely be a combination of repeated surveys, as well as the assessment of data for a list of indicators aimed at evaluating the PHC reform.

The essence of reliable evaluation is to make comparisons "before and after" as well as "with and with out" the policy change or projects' interventions. The need for "before and after" comparisons means that the collection of baseline data should be done as soon as possible, in order to assemble as many aspects of the PHC reform as possible.

The framework to be used for the evaluation consists of comparing those pilot sites that will receive resources (e.g. Imereti ;Adjara; Kakheti) and support from the projects with those that will not receive any intervention. The identification of control rayons/regions will provide a better evaluation tool. In the case of the PHC project, it is proposed that the evaluation is based on the close monitoring of all intervention sites and that the number of control sites be included in the baseline evaluation. The recommendation is to select the number of control rayons that are scheduled for implementation of the PHC model in the last year of the project. In this way, they can be held as the control.

Care must be taken to explain why some areas would adopt the policy change early (it is not imposed upon them by timing of budgetary support). Areas with particularly bad conditions may choose earlier, and if the program is at all successful, exaggerated results may be obtained. Or areas which are running well because they have good administrative capacity may choose first (because of having this capacity), but may not benefit so much from reform since they are already doing well. This would tend to lead to artificially weak results. If the adoption of or the pace of reform in different areas can be influenced directly, this can help in obtaining clearer results in evaluation.

The following table displays a schematic of how the interventions will be measured.

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[4] Veney, James E. and Kaluzny, Arnold D., Evaluation & Decision Making for Health Services, Table 1.1 p.4. Health Administration Press, Chicago, Illinois, 1998.

Table 3: Measuring intervention impact

Type of Group	Project Start	Project Mid-Term	Final Evaluation
Intervention	IO_1	X	IO_2
Control	CO_1		CO_2
Estimate of Impact	$IO_2 - IO_1 - (CO_2 - CO_1)$		

Where:
- ❑ I stands for the rayon/regions receiving project reform intervention
- ❑ C stands for the rayon/region not receiving project reform intervention (control group)
- ❑ X represents the project reform intervention
- ❑ O_1 represents observations prior to project intervention
- ❑ O_2 represents observations post project intervention

In this context, we can quickly compare the impact of the project interventions (X) on the pre (O_1) and post (O_2) intervention indicators. In addition, by comparing the tracking results for the indicators in the control rayons/regions with the same indicators in the intervention rayons /regions, it is possible to observe and calculate inflation statistics.

An initial observation is made prior to any project intervention in all rayons/regions. The data collected through this observation (O_1) is used as a baseline for comparison with data collected in subsequent observations (O_2). After the initial observation is made, project intervention (X) is introduced in the selected rayons/regions. This intervention may consist of the entire reform program, or only a limited amount of the reform program activities, depending on the project and rayon/region. After project implementation has been introduced, a second observation is made to assess information on the effects of the reform program. This data is then used to analyze and compare the pretest and posttest results.

The effects of the program /project reform intervention are measured by estimating the difference between the pretest and posttest results. The difference obtained for the pretest and posttest results in those rayons receiving no project intervention ($CO_2 - CO_1$) is subtracted from the difference obtained for the pretest and posttest results in those rayons /regions receiving project intervention ($IO_2 - IO_1$). This formula calculates the estimate of impact, which measures the effects caused by the project reform intervention.

6.5. Trend Analysis[5]

The performance tracking and development of the PHC sector will be based more on the measurement of changes in trends and the absolute achievement of specific targets set each year. In this regard, trend analysis will be used more as a monitoring and evaluation tool. Trend analysis is the study and evaluation of data collected throughout the sector focused on determining if the changes observed in the PHC sector are directly caused by the project implementation, or if some external cause had influence in the changes observed. This method analyses trends in the different indicators used to measure the performance of the project, and it aims at answering the following:

- ❑ If changes are a measure of performance
- ❑ If sector specific interventions somehow caused the changes to occur
- ❑ If changes are as expected, or are the results obtained outside the expected range
- ❑ If there are additional causes for the changes observed other than the implementation of the sector programs

The main purpose of trend analysis is to clarify the main causes for the observed changes. It is concerned with the long run outcomes, and if these outcomes are a direct response to the sector interventions.

Trend analysis also focuses on determining if the obtained outcomes are valid. There are several sources of error that need to be considered in the interpretation of results:

Regression to the mean is when the observed change is part of a trend correction. This happens when results have been higher or lower than the usual results through time. Hence, if results in the short term are higher than usual, then they will most likely revert to the long-term trend line, causing a correction change.

Reactiveness is when the observed change is caused due to a reaction to an issue other than the project intervention. For example, when a publicity campaign for hygiene, that is not part of the reform project, influences the reduction of gastrointestinal diseases observed in the project evaluation. Thus, the observed reduction may be caused both by the project implementation and by the publicity campaign.

Cohort and social structure change is when a particular age group causes a difference in the statistics of a population. An example of this is when a group of potential pregnant women, between the ages of 20 and 30, migrates to another area, causing the pregnancy rate to decrease in the near future.

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[5] Veney, James E. and Kaluzny, Arnold D., Evaluation & Decision Making for Health Services, Table 1.1 p.4. Health Administration Press, Chicago, Illinois, 1998.

Miscounting is when the data compared are gathered through different methods. This kind of error is caused when mortality rates for the urban population are compared with mortality rates for the rural population, causing unparallel comparison of results.

6.6. Developing a Sector Wide Approach for M&E

The health sector is a dynamic and complex sector whereby multiple actors intervene with multiple programs, financing, and strategies, many of which have similar objectives of achieving the three most commonly cited health goals (WHO 2000): improving health status, improving the financial risk protection (and ensuring sustainability), and improving user satisfaction and participation in the system. In this context, it is critical to establish an overall performance evaluation framework that attempts to link, ex-ante, separate projects or activities with specific goals, and then to evaluate, ex-post, whether there has been any impact of these programs on the stated beneficiary populations or on the three health sector goals. The development of a Health sector wide performance monitoring and evaluation tool will contribute to a better understanding of what programs/activities are being undertaken and how to evaluate their impact.   This is also linked with the establishment of the Medium-term Expenditure Framework, which allows policymakers to integrate the development of an investment framework with the evidence based results from the M&E system.

Specifically, the component would support the definition of sector wide indicators, including specific outcomes and the organization of surveys and studies on key issues; the preparation and organization of annual sector performance reviews; and the organization of annual health conferences lead by the MoHLSA, along with the participation of the World Bank, EU, USAID, DIFID, and WHO at which the results of the performance reviews would be discussed.

The monitoring and evaluation system could be aligned to the planning and budgeting process for the sector as a whole and for the reform program, in particular.   The process could be initiated with the collection of information from the providers through the finalization of the annual work plan and the corresponding budget.   In this way, the outputs from the M&E system, in the form of recommendations from the periodic reviews, will be taken into account during the preparation of annual work programs and budgets for the sector in the subsequent year.

 In this context, the MoHLSA will make great progress toward the implementation of a comprehensive policy for the PHC reform, with an agreed set of institutional reforms and institutional capacity building initiatives supported by the intervening multi and bilateral funding agencies (DFID, USAID, EU, and the World Bank). The M & E System implementation is a first step toward the institutionalization of regular donors meetings to coordinate closely and more effectively the many international supported interventions in the Primary Health Sector and /or the entire Health Sector making it integral.   The proposed project will promote the pooling of funds from interested donors for specific activities, such as health innovation grants, and for the organization

of surveys and studies on key issues to be defined by the MoHLSA in coordination with the agencies.

This coordination would be complemented by the ability to make better decisions regarding priorities and resources allocation based on the feedback, which would be developed from the M&E system. Priority is being given to the development and establishment of a Monitoring and Evaluation system. This approach would lead to a common understanding of the situation and a medium term collaborative program of work, which would help the government better identify areas in which additional external support will be needed.

7. Moving toward the development of the M&E System

The design and implementation of any performance evaluation exercise should begin with an in-depth analysis of what the PHC reform envisages to achieve, what indicators will be used to measure the change, where the data can be gathered from to develop the indicators, who is responsible for the different process at each stage of process, and what reports should be developed as an output from the M&E system. This section will focus on outlining the specific details required to set up and manage the PHC M&E system.

7.1. What are we trying to achieve?

The ultimate goal of the PHC Reform is to improve the health status of the population, by primarily increasing the quality and efficiency of the public health sector. The ultimate goals of reforms include: (i) improving health status; (ii) reducing financial risk to individuals by increasing risk pooling; and (iii) improving responsiveness to the population's needs (satisfaction, choice, and participation). The following figure shows how these objectives are related to intermediate goals and to policy instruments:

To this extent, the M&E system has to be able to measure partial and complete results in each of these areas. The

Figure 5
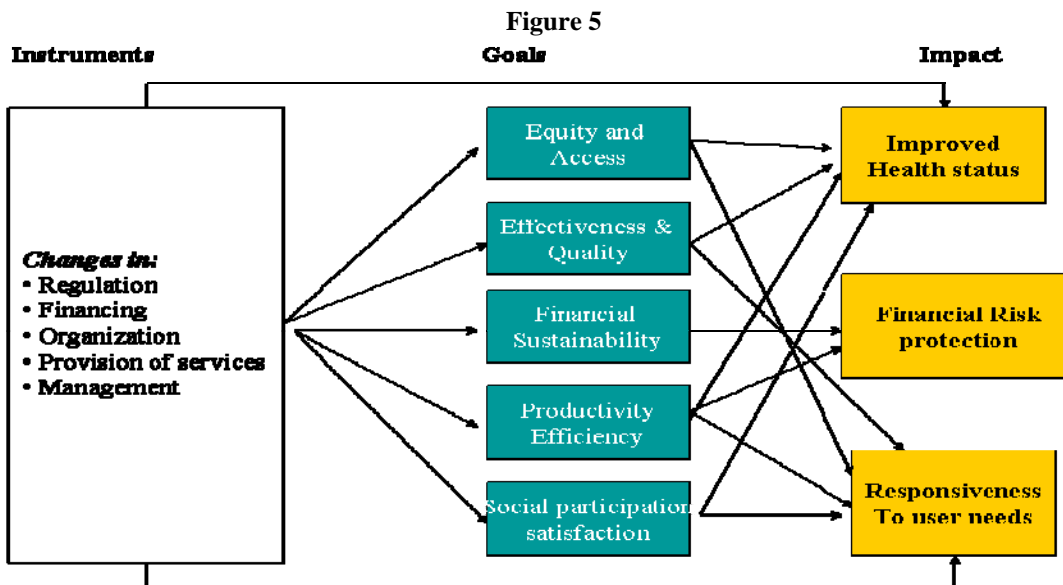
Within the context of this logical framework, it is useful to clarify some of the key concepts related to the impact evaluation of health sector policies. The five main areas are outlined below:

Equity and Access implies: (a) in a health situation, to decrease avoidable and unjust differences to a possible minimum; (b) in health services, to receive care in relation to need (equity of coverage, access, and use) and to contribute according to the ability to pay (financing equity); and (c) from the point of view of the population, to ensure people access to a basic, predefined package of health service in equal conditions.

Effectiveness and Quality. Effectiveness indicates that users of the services receive effective, safe, and timely assistance. Perceived quality means that they receive this care under proper physical and ethical conditions (perceived quality).

Efficiency and productivity implies a positive relationship between the results achieved and the cost of the resources used. It has two dimensions: resource allocation and the productivity of the services. Resources are allocated efficiently if they generate the maximum possible gain in terms of health per unit of cost, and they are used efficiently when a unit of product is obtained at minimum cost, or when more units of product are obtained with a given cost. Productivity refers to the volume of output in terms of consultations, hospital discharges, or other areas of activity.

Financial sustainability involves both the social and financing dimensions and is defined in terms of the system's capacity to solve its current legitimacy and financing problems, as well as the challenges of future maintenance and development. Consequently, it includes social acceptance and support and the availability of the necessary resources.

Social participation and responsiveness has to do with the procedures required to enable the general population and different agents to influence the planning, management, delivery, and evaluation of health systems and services, in order to benefit from the results of their influence. Responsiveness is a measure of how its providers should treat the system and how the systems should perform relative to non-health aspects, and meeting or not meeting a population's expectations.

The ideal reform aims at improving all of the five elements mentioned above. These five can be divided into groups of indicators to gather the necessary information for the formation of the baseline. The following section describes key issues related to the selection of specific indicators and the design and implementation of an M&E system.

7.2. M&E Indicators

The design of an effective M&E system depends on the selection of quality indicators, the development of institutional capacity to collect the indicators, the availability of a budget to enable continuous application of the M&E system, and a high quality analysis of the information. The indicators will enable the MOHLSA, the bi- and multi-bilateral agencies to:

- Measure achievement or progress toward targets and sector goals;
- Assess the overall performance of the PHC Sector;
- Set development objectives for future sector projects

This section describes the key aspects related to the definition of indicators, and a set of key performance indicators is presented in annex 2 , which outlines the reporting formats that will be used to manage indicators. It is possible that additional indicators are included during the project's implementation and that some indicators are excluded. The following sections describe key guidelines for future indicator development.

7.2.1. Selection of Indicators

The type of indicators needed to monitor and later evaluate varies greatly from project to project. Key indicators may need to be adapted as the project develops. The indicators selected for the PHC Program M&E system were designed based on the following principles:

Good indicators should follow the **SMART** approach, indicating that each indicator is:
- **S**pecific   (Precise and unambiguous)
- **M**easurable   (Must be amenable to independent validation)
- **A**dequate   (Must provide a sufficient basis to assess performance)
- **R**elevant   (Appropriate to subject at hand)
- **T**rackable   (Available at reasonable cost)

List of Indicators

As previously stated, the purpose of indicators is to help provide a comprehensive assessment of the performance of the health sector across the range of activities and services provided under the different projects intervening in the PHC sector in Georgia. In reality, the indicators proposed will provide the basis for evaluation of the overall PHC sector performance and specific elements that are linked only to the reform. The final list includes a distribution of the indicator types according to the following classification:

- **Key Performance Indicators** consist of a list of core indicators included in the World Bank project and other key performance indicators. They track the evolution of the health system and are relevant to all the stakeholders

- **Administrative or Program indicators,** which will include programmatic aspects integrated in the GHSPIC administration as well.

- **Input / processes indicators**, which include goods, services, training programs, and other inputs required to obtain the desired impact. The processes indicators will be linked to the output and outcome/impact indicators.

- **Output indicators**, including aspects such as the number of people trained, the equipment provided, and drugs purchased.

- **Outcome indicators** include the effects of program activities on target audience or population, such as changes in: knowledge, policies, environmental conditions attitudes, beliefs, skills, behaviors, and access to services.

- **Impact indicators** include the long-range cumulative effects of programs/project, such as change in morbidity and mortality. Impacts are rarely if ever attributable to a single project; yet, in relation to other programs it may contribute to impacts on a population.

The core performance criteria to be selected will be developed along four main lines: (i) administrative/process indicators to measure the project's progress and performance on management; (ii) customer satisfaction; (iii) financial risk protection; and (iv) intermediary criteria related to processes: access, efficiency, quality, equity in financing, and community participation.

The proposed set of indicators which are part of the present report have followed a participative process with all the relevant actors for the future design and implementation of the M & E System. The GHSPIC, EU-GVG, DFID-OPM, USAID- CURATIO- CoReform, and HPU technical staff have consulted about the preparation, review, and definition process of the proposed set of indicators.   The indicators are listed on the forthcoming pages. First we

outline the key performance indicators which are a subset of all indicators, then the indicators for individual areas are included in each separate category.

Key Performance Indicators

- ❖ % of specialists trained on public management and health
- ❖ % of health workers that participate in a seminar or course on public health and management
- ❖ % of PHC facilities that have received training or educational work-shops and courses on financing and management for PHC facilities
- ❖ # of GP training courses on the basis of 10-months program
- ❖ # GPs participating in Short-term courses for GPs on continuous medical education
- ❖ % of GPs that finish training course
- ❖ % of PHC facilities that have at least 80% of the required essential drugs list
- ❖ % of PHC facilities that have at least 80% of injectable essential medicines
- ❖ % of children vaccinated against: ARVI, Measles, Diptheria, Polio, Tetanus, TB and Hepatitis B
- ❖ % of newborns vaccinated against Hepatitis B
- ❖ % of population registered with PHC FACILITY
- ❖ Average number of consults per person per year (PHC level)
- ❖ Proportion of successive to new visits
- ❖ GP visits per 1,000 registered population
- ❖ GP referrals per 1,000 affiliated population
- ❖ % of recurrent expenses for PHC of the total oblasts health budget (recurrent expenditures)
- ❖ % of expenditure for outpatient care (PHC + specialist outpatient)
- ❖ % of people surveyed that are satisfied or highly satisfied with PHC FACILITY services
- ❖ % of people surveyed that are satisfied or highly satisfied with hospital services
- ❖ # of community based grants implemented
- ❖ M&E system functioning and have carried out 2 house hold surveys + 2 facility surveys
- ❖ % of all pregnant women that received at least 6 prenatal visits prior to birth
- ❖ % of pregnant women that have access to free HIV Testing
- ❖ % of pregnant women with HIV/AIDS that have access to MTCT protocol
- ❖ % of high risk groups that are covered by preventive programs
- ❖ % of population covered by DOTS
- ❖ % of pregnant women with anemia
- ❖ Out-of-pocket expenditures as share of total health expenditures
- ❖ Share of the raions that have rationalized their provider network
- ❖ MoHLSA expenditure on health (real terms US$)
- ❖ Total health expenditure per capita (real terms US$)

❖ Multi and bi lateral agencies disbursement performance
❖ Share of population with access to health care
❖ Share of total public health expenditure allocated to PHC (recurrent spending only)

The performance indicators for each of the seven areas are outlined below.

Administrative indicators

Input
❖ Average # of months from RFP to signature of contract for goods procurement bidding process
❖ Equipment, Average # of days from customs reception to distribution in regions
❖ Average # months from RFP to signature of contract for consulting services procurement
❖ Develop a detailed table of financial expenditures, by category and by region.
❖ % of Financial Management Reports (FMR) that are delivered on time to the WB
❖ % of Project Management Reports (PMR) that are delivered on time to the WB respectively
❖ Total local contribution for co-financing in US$
❖ Co-financing by disbursement category

Output
• Total US$ spent by disbursement category.
• Total US$ spent by disbursement category.
• % of total project expenses financed by local contribution.

Outcome
• Share of Procurement processes that result in signature of contract with no procedural errors.
• Improved Financial monitoring and control.
• EU disbursement performance.
• USAID disbursement performance.
• DFID disbursement performance
• WB disbursement performance.
• Government maintains financial commitment to project through continuous financing of counterpart funds.

Impact
• Projects achieve 100% disbursement within agreed project timetable.

Access indicators

Input/process indicators

- ❖ % of primary care establishments with an established system to register population
- ❖ Population per PHC nurse
- ❖ Spending on construction of new PHC facility
- ❖ # of New PHC facilities constructed
- ❖ Average cost per new PHC facility constructed
- ❖ Spending on reconstruction of reorganized PHC facility (US$)
- ❖ # of reorganized PHC facilities reconstructed
- ❖ Average cost per reconstruction of reorganized PHC facility
- ❖ Spending on equipment for PHC facility
- ❖ % of total PHC facility with adequate medical equipment
- ❖ Per capita spending on essential drugs at PHC facility level
- ❖ % of drugs in essential package procured and delivered
- ❖ % of increase in total health expenditure per capita
- ❖ Volume of government funded PHC services being delivered
- ❖ Share of total public health expenditure allocated to PHC increases
- ❖ Ratio of GP:Nurses

Output

- ❖ % of population registered with PHC facility
- ❖ % of population living within 1,5 km distance from PHC facility
- ❖ % of PHC facility with GP at least 3 days per week
- ❖ Population per PHC facility doctor
- ❖ Average number of consults per person per year (PHC level)
- ❖ % of PHC facilities that have received complete equipment package
- ❖ % of PHC facilities that have appropriate availability of supply of essential drugs

Outcome

- ❖ Out-of-pocket expenditures as share of total health expenditures
- ❖ Reduced burden on families of out-of-pocket health expenditures.
- ❖ Approximately 50 percent of the population with access to a PHC clinic within 30 minutes of walking or other transportation
- ❖ Population with access to PHC services completing at least three visits per capita per year
- ❖ Annual user fee income
- ❖ Income by sources of funds

Impact

- ❖ Share of population with access to health care
- ❖ % of individuals in the poorest 40% of population that pay for health services
- ❖ % of population improved knowledge and behavior towards a more healthy lifestyles (smoking, diet, # of check-ups)
- ❖ % of population given advice on the health lifestyles

Equity

Input

- ❖ Share of all PHC facilities involved in restructuring process (closure and/or reconstruction)
- ❖ # Plan of shift in resource flows towards regions with greatest health needs
- ❖ FM physicians deployed to rural PHC facilities
- ❖ Public spending in PHC per region
- ❖ Investment in PHC services per capita per region
- ❖ Availability of GP per region

Output

- ❖ Immunization coverage per region
- ❖ GP visits per region
- ❖ Public subsidy per quintile
- ❖ Consultations per quintile

Outcome

- ❖ % Increase of the # of people who seek care first at PHC level by the end of the project
- ❖ By the end of the project the IEC has promoted the PHC effectively reaching at least 90 of the target population
- ❖ % increase in the proportion of infants in the population that receive immunization (DPT3) on time
- ❖ % increase in the proportion of pregnant women who have had at least 4 prenatal visits
- ❖ % increase in the proportion of adult patients seen in refurbished PHC clinics for whom blood pressure is recorded in patients' medical records

Impact

- ❖ Peri-natal mortality rate by canton, socio-economic status, rural/urban and race

- ❖ Infant mortality rate by canton, socio-economic status, rural/urban and race
- ❖ Childhood mortality rate by canton, socio-economic status, rural/urban and race
- ❖ Maternal mortality rate by canton, socio-economic status, rural/urban and race
- ❖ Improved knowledge and practice of practices related to health lifestyles (smoking, diet, wellbeing check-ups)

Quality

Input

- ❖ Spending on GP training
- ❖ Spending on TOT
- ❖ Spending on Nurse training
- ❖ % of PHC facilities that have at least 80% of the required basic equipment
- ❖ % of PHC facilities that have at least 80% of the required essential drugs list
- ❖ % of PHC facilities that have at least 80% of injectable essential medicines
- ❖ % of PHC facilities that have less than 10% expiration rate for the essential drugs
- ❖ % PHC facilities that apply clinical protocols
- ❖ % of PHC facilities that have evidence of a system for suggestion in facility
- ❖ Undergraduate and postgraduate family doctor, nurse and manager curriculum developed
- ❖ % PHC facilities with systems for quality control, accreditation and performance management
- ❖ % center with an Office for evaluating Health Services
- ❖ # of GP training courses on the basis of 10-months program
- ❖ % of GPs that finish training course
- ❖ # GPs participating in Short-term courses for GPs on continuous medical education
- ❖ # of GPs participating in Study tours
- ❖ # of nurses participating in Study tours
- ❖ % of TOT that complete program
- ❖ # of TOTs trained
- ❖ # of nurses trained
- ❖ % of Nurses that finish training course
- ❖ # of physicians undergoing training on CQI
- ❖ # of nurses undergoing training on CQI
- ❖ # of trained GPs who work in PHC facilities
- ❖ # of nurses trained in FP (family practice)
- ❖ % of PHC facilities with a trained nurse

Output

- ❖ % of patients per PHC facility who got medical treatment according to national treatment protocols
    - ▪ a. IMCI
    - ▪ в. cardiovascular diseases
    - ▪ c. Anemia
    - ▪ d. respiratory organs and etc.
- ❖ # Prevention and education activities for the population
- ❖ # Plan for promoting healthy life styles in adolescents
- ❖ # Plan for promoting healthy life styles in persons of 60 years and over
- ❖ % of PHC facility Visits that prescribe antiobiotic
- ❖ % of PHC facility visits that result in injections
- ❖ % decrease in informal OOPs by EoP according to respondents
- ❖ % of PHC facilities providing prevention and promotion
- ❖ % increase in the number of cases managed according to internationally and nationally approved treatment guidelines
- ❖ % increase in the number of appropriate referrals (appropriate defined according to treatment protocols)
- ❖ % decrease of ARI/DD cases referred to the hospital
- ❖ Quality evaluations
    - ▪ Number of interviewed people
    - ▪ System for suggestions/complaints in place
    - ▪ Number of complaints per 1,000 members
    - ▪ Number of suggestions per 1,000 members
    - ▪ Number of complaints per 1000 members
    - ▪ Number of suggestions
    - ▪ Number of complaints resolved
    - ▪ Number of suggestions implemented
    - ▪ % of satisfied population
    - ▪ % of very satisfied population

Outcome

- ❖ % of PHC facilities with a GP that has been trained
- ❖ % of GPs trained that are satisfied or highly satisfied with training course
- ❖ % of Nurses trained that are satisfied or highly satisfied with training course
- ❖ % of population with access to an PHC facility that has improved quality standards.
- ❖ % of PHC facilities that have implemented a continuous quality improvement (CQI) program
- ❖ Improve rationale drug use
- ❖ Improved client satisfaction
- ❖ Number of activities of prevention and promotion per 100,000
- ❖ % of achievement of program performance indicators
- ❖ Health Promotion quality indicators

- Obesity prevalence
- People with a body mass index greater than or equal to 30
- Smoking rate
- Diabetes prevalence
- Gonorrhea/Chlamydia rates

Impact

- ❖ Share of population covered by a PHC facility with a GP that has undergone training

Efficiency

Input
- ❖ Percent of lab equipment required for epid. surveillance system that have been procured
- ❖ Share of rayons that have an approved rationalization /consolidation plan
- ❖ Share of oblasts that have received training on management information system
- ❖ Share of oblasts that have developed computer model on rationalization
- ❖ % of PHC facilities personnel who had training on "Clinical Informational System" CIS
- ❖ # of Cabinet of Ministers, MoHLSA and other regulations approved on PHC
- ❖ % of PHC facilities that have received training or educational work-shops and courses on financing and management for PHC facilities
- ❖ % of PHC facilities with a financial manager
- ❖ Cost of clinical staff as % total costs
- ❖ Average remuneration of GP
- ❖ Average remuneration of a nurse
- ❖ % drug spending
- ❖ % medical equipment and infrastructure
- ❖ % prescription of generics
- ❖ Antibiotics prescription rate

Output
- ❖ % of visits to PHC from chronic (non acute) patients
- ❖ % preventive visits
- ❖ % visits at home
- ❖ GP visits per 1,000 registered population
- ❖ GP referrals per 1,000 affiliated population
- ❖ Prescriptions per 1,000 registered population
- ❖ Transportation by ambulance per 100 persons
- ❖ Laboratory exams per 1,000 affiliates
- ❖ Diagnostic tests per 1000 affiliates

- ❖ Influenza vaccination > 65 years
- ❖ Childhood immunizations rate (vaccination of child population)
- ❖ proportion of pregnant women who have had at least 4 prenatal visits
- ❖ Percentage of women 25-64 screened for cervical abnormalities (womb cancer screening)

Outcome
- ❖ Share of the rayons that have rationalized/consolidated their provider network
- ❖ Improved capacity of PHC to resolve healthcare problems
- ❖ Reduction in average cost per person
- ❖ Cervix-cancer incidence rates
- ❖ Child-related diseases incidence rates
- ❖ Proportion of health sector financing by source

Impact

- ❖ Share of all PHC facilities involved in restructuring process (closure and/or reconstruction)
- ❖ Infant mortality rates

Sustainability

Input

- ❖ % of expenses for the staff salary of the total PHC facility budget.
- ❖ Average expenditures as % average revenues per PHC facility
- ❖ Cost of one laboratory exam per PHC facility
- ❖ Expenses per capita on antibiotics.
- ❖ Expenses per capita on Pharmacy.
- ❖ Expenses per capita on Laboratory.
- ❖ PHC management strategies and plans
- ❖ PHC pharmaceutical policies developed
- ❖ Number of agreements on provider payment regimes
- ❖ Medium Term Expenditure Framework budget management system completed
- ❖ Number of systems for forward planning and provision of PHC work force

Output

- ❖ % of recurrent expenses for PHC of the total oblasts health budget (recurrent expenditures)

❖ % of expenditure for outpatient care (PHC + specialist outpatient)
❖ Average Cost per visit to PHC facility

Outcome

❖ Financial expenses of PHC facility per capita per year

Impact

❖ Share of total public health expenditure allocated to PHC (recurrent spending only)

Community Participation

❖ Number of regions in which community decision-making structures operate to discuss health concerns or decide program management issues, or both.
❖ Percentage of constructed water supply facilities maintained by the community (CIWG).
❖ Policy dialogues and formulation involves NGOs, community leaders, and representatives of the private sector and special interest groups
❖ # of community projects by type of projects
❖ Number of community-based programs supporting primary health care.

7.3. Framework for M&E implementation

The framework within which the M&E system is developed is critical to its success. The M&E will be a tool of the Ministry of Health, Labor and Social Affairs to oversee and provide guidance on the implementation of health sector policies. This will potentially be an important element to encourage more unified policymaking in the country. Some of the more important issues that arise regarding institutional setting and implementation include:

Establishing Institutional Responsibility to consolidate efforts and develop the M&E system within one organizational structure. Past experience has shown that in order to optimize its use, it is important to ensure that throughout the data collection processes the governments, policymakers, and program managers have ownership of data. However, this ownership may not immediately lead to better data use. There still may be strong political or other hindrances in the turning of data into action. Nonetheless, it is important to develop an integrated M&E system that is more probable to succeed, rather than to provide a fragmented system that only meets the needs of selected donors instead those of the entire nation.

Such ownership means that: (1) the government agencies with the primary responsibility for healthcare surveillance, monitoring, and evaluation have to provide guidance and leadership to

all actors involved in the M&E activities throughout the data collection exercise—from integrated planning and analysis, to interpretation and reporting; and (2) existing national capacity (governmental and nongovernmental) must be strengthened to guarantee uniform quality data within a sustainable framework (for example, sound training in M&E related institutions could be the best way to ensure this sustainability because they already have survey expertise).

The implementation of the M&E system will depend on the institutional counterpart in order to ensure an ongoing implementation of the M&E system. In this regard, the consultant has identified four potential options, which should be analyzed by the counterpart and defined for the next phase of the implementation.

(i) To create a department within the MoHLSA, directly attached the Health Vice Minister's Office, which is to be responsible for the M&E collection and dissemination.

(ii) To use the existing Health Policy Unit (HPU) to collect the data and prepare M&E reporting, as will be described in the final report.

(iii) To use the existing Medical Statistic Institute to collect the data and prepare M&E reporting.

(iv) To develop an M&E unit in the GHSPIC that would assume responsibility for maintaining the M&E system and gathering data from all sources.

The advantages and disadvantages are shown below in the following table:

Table 4: Institutional options for M&E implementation

Option	Advantages	Disadvantages
1. Creation of department within MoHLSA –Health Vice Ministry	• Closer integration between collection of information and policymaking processes	• Starting of a new institutional development initiative • Subject to political instability • Potential competition among institutions
2. Development of M&E capacity in the Health Policy Unit (HPU)	• Creating expertise in Health topic analysis • Broader view of sector performance • Open to develop analytical capacity in M & E • Studies are already performed	• Poor institutional development in M&E issues • Potential institutional jealousy • Weak link with policymaking process
3. Development of M&E capacity	• Created expertise in data	• Poor institutional development

Option	Advantages	Disadvantages
in the Medical Statistics Institute	collection • The Institute will manage the HMIS System • Broader view of sector performance	in M&E issues • Potential institutional jealousy • Weak link with policymaking process
4. Creation of M&E unit in GHSPIC in charge of maintenance and information gathering	• High accountability to GHSPIC CEO • More consistent results	• Poor institutional development in M&E issues • Temporary existence • Potential institutional jealousy

Coordination with Partners: M&E working groups have proved to be useful coordination mechanisms for developing and implementing comprehensive national M&E strategies, including data use plans. The working group monitoring and evaluation should be comprised of senior members of the reform team, officials from MoHLSA departments, and persons from institutes working on reforms. Representatives of civil society and NGOs have been included; technical assistance from the outside should be procured to ensure the most effective and high quality instruments.

Data Collection. Once a decision has been made about what to measure, a coherent plan must be made. This plan foresees all necessary indicators and takes into account all major data collection efforts within the country, leading to the most efficient use of resources in data collection. Such surveys are expensive and generally infrequent; they represent an opportunity to collect a range of data that may be important for monitoring progress of the national health trends. For example, they may be expanded to include questions on antenatal care service use, which could be used in the analysis of the quality of PHC services. Household surveys will also provide information on the impact of the reform. The best known international household survey program is the Demographic and Health Surveys (DHS). In many developing countries, DHS surveys are conducted once every five years or so. It is important to form such instruments where indicators will be included as part of the M&E system.

Baseline data collection. In order to evaluate the health sector and to analyze the observed changes, it is highly recommendable that baseline data is collected to compare the before and after results of the different health sector interventions. Based on the list of indicators, the baseline data is gathered before the project is implemented, in order to have a control list of indicator results, as well as to be able to observe and analyze changes in the health sector throughout the program/project implementation, linked to the national health policy in a five-year period. For this project, the baseline data should be collected at rayon and national levels to allow for continuous monitoring of the overall Primary Health Care interventions.

Ongoing efforts to collect M&E data. The true test of a national M&E system is the ongoing collection and use of data to measure program performance, depending on the continued support and efforts by the Ministry of Health, Labor, and Social Affairs to sustain the M&E system. The M&E system will act as a clearinghouse for both generating and disseminating data. A formal mechanism for screening data collection efforts can ensure that whatever is collected corresponds to the country's M&E needs. Furthermore, a centralized database or library of all PHC related data collection will contribute to the efficiency of M&E efforts. To avoid duplication of studies, the database should list data regarding any current efforts or completion of collections. It is also very useful to keep a record of research protocols and questionnaires in the database, allowing repetition that over time maintains their consistency.

Cross level linking of indicators: A data collection and analysis plan should also focus on the linking of indicators at different levels of measurement. Program outputs should be interpreted in relation to program inputs. Upon being collected through specialized surveys, the program outcomes (for example, an increase in first time PHC consultations) should be analyzed in relation to changes in program outputs.

Quality of the Information: Ensuring that the data provided as a source for the M&E system is of good quality, which is especially important for the success of the M&E system. The standard criteria for assessing the quality of an M&E system are:

- *Utility:* The M&E system provides practical information to intended users;

- *Feasibility:* The methods, sequences, timing, and processing of procedures are realistic, prudent, and cost-effective;

- *Propriety:* The M&E system is implemented with legal, ethical, and cautious basis, in order to protect stakeholders in the system;

- *Accuracy:* The M&E outputs should reveal and convey technically adequate information.

The M&E system will require the adjustment of indicators, data collection methods, responsibility, and other areas as it is implemented. In order to ensure flexibility and data quality, the M&E system should use these important measures:

- Triangularization of results, combining reported results from special survey sources or from national statistics with impact assessments and focus groups, to ensure that results are of the highest quality;

- Spot audits of the data submitted by the M&E system. By randomly selecting 10% of all sites and reviewing the data submitted at the source, the M&E system would provide a final data control mechanism;

The M&E system is going to be a particularly important tool for improving the consecution of those objectives. To achieve these goals, a baseline list of indicators will necessarily be developed to capture information focusing on the elements of equity and access, quality, efficiency and productivity, financial sustainability, and responsiveness and social participation.

7.4. Establishing Institutional Responsibility

The implementation of a well-designed and managed M&E system will require considerable investment and support over the forthcoming years. To ensure that the system is well-managed on an ongoing basis as a result of the present consulting services, the critical steps have been determined associated with its implementation at three levels of actions: human resources and training, software and hardware, and survey implementation.

The GHSPIC in coordination with the MoHLSA will be responsible for the implementation M&E development process. A team of around three full-time workers are expected to support the design and implementation of the M&E framework. This team would include the M&E Coordinator, an Economist and a programmer.

The team would also be responsible for coordinating or liaising with other institutions and ministries to ensure appropriate collection of data. The prospective profile of this staff would include:

- Public health specialist
- Economist
- Programmer with knowledge of visual basic and SQL server

A Monitoring and Evaluation Unit is expected to play the leading role in guiding the M&E System implementation for the PHC Sector in Georgia. This includes active contribution to capacity development and training of staff involved in the implementation and administration of a M & E system.

Some of the main responsibilities of the M&E Unit will be:

- Develop a detailed implementation plan for the approved M&E system

- Assist in supervising and quality checking the development of the prescribed database programming

- Develop and draw up a detailed training program on the new M&E system for the Health Authorities and the Health Policy Unit (HPU), and the Medical Statistics Institute

- Coordinate during the development, installation, and operation of the new M&E system for the Health Sector in close coordination with the HMIS

- Assist in data testing and trial running of the new M&E system

- Build up in-house capacity within MoHLSA-Vice Ministry of Health and the Health Policy Unit on successful project planning, design, implementation, monitoring, and evaluation

- Define and develop all the reporting formats for Central authorities, as well as for the donors and other stakeholders

The flow of information, of the M&E system as a key tool, should be closely linked to the development of accountability within the government sector. The use of information should be structured and scheduled according to the needs of the stakeholders. The following points highlight key aspects related to the use of the M&E system:

- The M & E Unit / Coordinator will need to monitor expenditure, input /processes/ output/outcome indicators to assess the PHC performance

- Outputs are unlikely to be measurable in less than three month intervals, and some may need longer

- Surveys should be carried out at least every two years.

A permanent Monitoring and Evaluation Unit ensures the maintenance of the system, in addition to the coordination with outside agencies to obtain the necessary information from the pre-established sources.

Continuous updating and analysis of this information will provide policymakers with valuable information on progress toward the project's objectives and provide continuous feedback on how investments are producing results for the Georgian population.

The information needs to monitor progress and set realistic targets that must be identified. In determining the information available to feed the M & E System the following issues should be considered:

Are the data currently available?	
At what geographic level are the data available?	
Are the data of sufficient robustness and/or quality?	
What is the evidence base?	
Trends: availability, consistency, and direction.	
Are denominators available (population or list based)?	
Who owns the data?	
Are there any problems with access to the data?	
Confidentiality/data protection issues.	
Opportunities for data linkage.	

Figure 6

M & E Unit processes

Monitoring and Evaluation Unit

M & E Unit is created by the MoHLSA, establishing formal operational processes

M & E Units submit instructions/guidelines to all the involved organisation in supporting the M & E System development and administration.

DATA COLLECTION — Policlinics at the rayon/regional Medical Statistics Institute, HPU, M & E Unit

DATA PROCESSING — Medical Statistics Institute, M & E Unit

DATA STORAGE — Medical Statistics Institute, M & E Unit / HMIS System

M & E DATA REPORTING — M & E Unit

M & E ANALYSIS — M & E Coordinator / HPU, Vice Ministry of Health

DECISION MAKING PROCESS

FEEDBACK/LESSONS LEARNED — GG-MoHLSA, Multi-bilateral agencies

7.5. Data Collection Methods for the M&E System design and implementation

In order to evaluate the health sector performance and the PHC program reform in particular, baseline data must be collected to compare the before and the after results of the different programs/ projects under implementation. The baseline data should be gathered before the M&E is implemented, in order to have a control list of indicator results, allowing for observation and analyzing of the changes in the health sector throughout a pre-determined period of time. The baseline data should be collected at the rayon /regional level to allow for continuous monitoring of the health sector impact.

Both secondary and primary data should be used to monitor and evaluate the health sector. The sources of these data may include the following:

o   Medical Statistics Institute reports

- o   Epidemiological Surveys
- o   Provider utilization statistics
- o   Secondary data from the Health Insurance Funds
- o   Facility surveys
- o   Project Management Reports (GHSPIC, EU, DFID, USAID, and their implementing partners)

As part of the final report, we will identify for each indicator what the source of data will be and periodicity with which the data should be collected.

7.6. Critical Issues for M&E Implementation

The main elements that are critical to establishing the M&E system should include the aspects summarized in the following figure:

Figure 4: Key Elements for an M&E Evaluation Plan

Monitoring and Evaluation Requirements for	How to Demonstrate the Evaluation Plan in Project Documentation
(1) Demonstrate a project logic that is a) consistent, b) geared toward achieving measurable results, and c) produces an impact on targeted population.	• Preparation of the Log-frame: Demonstration of the logic or causal chain by which the particular project will deliver results • M&E system: Demonstration of short-term, medium-term and long-term objectives and strategies used to achieve identified objectives
(2) Monitor project progress and report regularly to partners on project progress.	• Logical model • Benchmarking • Budget for monitoring and evaluating activities • Timeline for monitoring and evaluating activities with allocation of responsibilities to team members
(3) Collect data according to certain indicators. Useful data should include data on population and on the situation before the project, in order to enable systematic monitoring and objective evaluation by the implementing organization, (Multi –bilateral agencies), and/or by an external party.	• Draft list of indicators that are specific, measurable, attainable, relevant, and trackable ("SMART") • Data collection plan and strategy • Data collection resources • Data collection timelines
(4) Evaluate ex-post (after the project): a) Whether the project reached its goals; b) The impact of the project (which is not the same as reaching its goals); c) To what extent the project might be sustainable after project funding has ceased; d) Under what circumstances the project might be replicated.	• Evaluation plan, stating: • Goals of evaluation • Purpose; expected use of evaluation findings • Key evaluation or research questions • Scope of evaluation • Design • Method • Budget • Who will conduct the evaluation (staff/consultant)

Monitoring and Evaluation Requirements for	How to Demonstrate the Evaluation Plan in Project Documentation
(5) Have mechanisms in place for capturing and documenting lessons learned during and at the end of the project's Implementation Phase. What aspects of the project worked well and why were they analyzed and documented; (6) Have a mechanism in place for disseminating lessons learned and using the results obtained through lessons learned in enhancing program design.	• Responsibility assigned • Discussion on how organizational learning is taking place and if lessons have an institutionalization process • Discussion on how lessons learned will be incorporated into program design

7.7. M & E Reporting

As previously mentioned, monitoring primarily has to do with providing intermediate information for project decision making, relevant to the adequacy, progress, efficiency, and effectiveness of the program. Collecting information during the planning stage helps define if a project is able to adequately address the problem. The continuous assessment of intermediate data during the implementation stage provides information on whether the processes are being implemented, as they should, and if they are producing the expected results in the most efficient manner.

7.7.1.   Defining Reporting Requirements

The following table highlights the key activities associated with the M&E activity in the PHC Sector.   The table highlights the type of activity to be carried out, the timing, scope, responsibility, and key users.

Source	Timing for utilization
M&E Project Management Reports	These reports will provide information on a monthly basis regarding programs/ projects implementation, financial execution, and principal outputs
Medical Statistics Institute	Official source of data for many of their input/output indicators. Data will be collected at the rayon /regional level if available, on a monthly/quarterly basis (linked to the HMIS data collection)
Line Ministries	Data may be collected bi-annually from the government line ministries that are involved in data collection for specific areas, including *inter alia:* health, education, environment, finance ,etc.
Beneficiary assessment	Beneficiary assessments should be carried out prior to initiation (baseline), at mid-term and at the end of the project
Impact evaluation	Impact evaluation should be carried out by external consultants, local and international, at the mid-term and at the end of the project. As part of baseline process, some indicators may also be collected.
Focus Groups	Focus groups should be carried out at least one per year.
Surveys	This could include the LQAS or traditional household survey methods

The M&E implementing team, including GHSPIC and other stakeholders, need to use reports /information and evaluative evidence effectively, in order to manage development processes and to achieve expected results.   Success is based on the premise that M&E Staff and stakeholders learn from what works and did not work, in order to ensure better progress toward results and better results.

7.8. Lessons Learned

At the end of the day, the importance of the M&E system will depend on the extent to which data from the system is analyzed and processed by policymakers to make evidence based decisions. In this context, the definition of mechanisms to interpret and discuss lessons learned is critical. Lessons learned is a continuous, dynamic process of investigation, where the key elements are experience, knowledge, access, and relevance. It requires a culture of inquiry, analysis, and investigation, rather than one of response and reporting. This is more easily accomplished when people are given the chance to observe, engage in, and invent or discover strategies for dealing with particular types of problems or development issues.   The management of knowledge involves creating, sharing, and leveraging knowledge that not only requires establishing systems and processes to gather, organize, package, and disseminate information on time to the right decision makers, but also conducting assessments of the processes. Information gained from the processes may be described as feedback.

Evaluative evidence helps us to use information generated from experience to influence the way in which appropriate policies and programs are developed, or the way in which projects are managed. Evaluative evidence refers to information or data indicating qualitative and quantitative values of development processes, outcomes, and impact, derived from multiple sources of information and compiled in an evaluation exercise. Evaluative evidence is based on:

- The explanation of causal links in interventions and their effects;
- Analysis from close-up, detailed observation of the development context by the investigator(s), which is part of empirical evidence;
- Analysis from research and review and other documents (secondary sources) relevant to the development context;
- The attempt to avoid any preconceptions in the assessment.

Evaluative evidence does not, however, always include direct, detailed observations as a source of evidence. Good evaluations are empirically based. Empirical evidence is verifiable information based on observation or experience rather than on conjecture, theory, or logic. Empirical evidence is designed to reflect:

- Validity of conceptual ideas or issues;

- Consistency in trends or patterns;
- Factors contributing to actual outcome(s) and impacts.

The major challenge in monitoring is to gather, store and use information that serves different levels of assessment. Monitoring should be multifunctional so that information generated at one level is useful at the next. Monitoring should also go beyond checking whether events are taking place as planned. The quality of the two-way flow of information at the country level between the project staff and the program staff must be regularly investigated.

The same is true for the flow of information within the PMU among program staff engaged in managing different programs and monitoring the outputs produced by projects and their effect on outcomes. This can be achieved through periodic interviews, review of annual and other program and project reports, and independent observation of events. The monitoring process should be committed to improving the lateral linkages among project and program staff, including feedback processes, for learning purposes. Analysis of the existing or possible linkages across programs and projects should be as critical, objective and exhaustive as possible. Managers must be involved in the entire monitoring process. Evaluation is a process-oriented exercise that requires establishing common baseline data for making comparisons. The problem is knowing from the outset every factor that is relevant and how all factors affect each other. Before any evaluation, take the following steps:

- Agree on the priority issues demanding information. Secure agreement on those issues that most urgently require information to make the most of the resources available for information management, which tend to be limited and complex. A high degree of consultation is required during the agreement process since stakeholders may have widely differing views on priorities.
- A draft list of priority issues could be prepared and distributed to stakeholders for comment. Alternatively, a workshop or other discussion forum could be held specifically to reach consensus. Reconciling different viewpoints by negotiating a consensus on priority issues can help build ties between stakeholders and facilitate cooperation.
- Determine the information needs of decision-making groups. The key to effective use of information is to focus only on essential information. Ask decision makers to articulate their needs directly before embarking on an evaluation. A thorough assessment of information needs is a critical initial step. One of the most efficient ways of arriving at transferable information (lessons) is through outcome evaluations, the sharing of which can facilitate learning across different countries and geographical locations.

The Feedback Process

The feedback process for PHCDP when undertaking monitoring and evaluation should follows some basic steps:

1. Ensure a Focus on Results
- Elaborate projects and programs based on intended outcomes;
- Establish what evidence is being sought, what variations can be anticipated, and what should be done if such variations occur (i.e., what would constitute supportive or contrary evidence for any given project or program);
- Define, for each staff level and partners, the purpose for generating knowledge or decision-making information and its scope;
- Define monitoring priorities oriented to outputs and outcomes and have reference points or standards against which judgments can be made about feedback;
- Select knowledge and information indicators based on corporate priorities, use and user;
- Be cost-effective in regards to the level of resources applied and identify key evaluation resource requirements in future programming;
- Incorporate a timescale covering future changes in programming;
- Agree on the system to collect and analyze data, and allocate responsibility and costs;
- Scan qualitative information to improve the application of certain monitoring and evaluation techniques such as field-checking of assumptions, better framing of questions or issues, and more astute choice of assessment areas;
- Monitor learning processes, including the use of feedback and knowledge products.

2. Ask Questions
- Constantly inquire, through feedback mechanisms, about why events appear to have happened or to be happening in projects and programs;
- Identify the extent of the effect that projects or programs are having as compared to other factors influencing a development situation;
- Specify where, when and how information will be interpreted, communicated and disseminated, including consultations as inputs to routine processes.

3. Share Knowledge

- Document, analyze and review comparative experiences in program design, partnerships, monitoring and evaluation activities;
- Operate at different organizational levels (operational activities, strategic choices, corporate vision/priority) consistent with PHCDP's knowledge-management strategy;
- Share knowledge and learning with communities of practice, using the global knowledge networks;
- Determine knowledge and information sources, including the type of evaluative evidence they provide and the frequency of their availability.

4. Target Strategically

- Generate information that is appropriate for different users and timely in relation to decision-making and accountability requirements;
- Design, in consultation with users, appropriate formats and train staff to use them;
- Seek views of all key stakeholders, including program beneficiaries.

5. Seek Empirical Evidence

- Cross-check and ensure quality of evaluative evidence to produce valid and relevant feedback.

Lessons are insights based on evaluation experiences. They go beyond the specific circumstances and can be *generalized*. Project lessons typically highlight the design or implementation strengths and weaknesses that affected project performance.

Example of a lesson:
"People with some prior experience using computers tend to absorb IT training better. In cases where we selected participants with more experience, average improvements in test scores were higher."

Lessons are:

- *Generalizable*, which means they are valid in or relevant to other contexts;

- *Significant and important*, which means you are able to remember them distinctly and to distinguish them from other findings;

- *New*; for example "content development takes time" is an "old" lesson, this is knowledge that you will be expected to have before the start of the project;

- *Unanticipated*; therefore a result or an impact cannot be a lesson learned.

Although lessons can be learned throughout both the Planning and Implementation Phases, there are many cases where findings cannot be generalized because they are highly dependent on the specificity of the context. It is important to be careful 'extrapolating', i.e. assuming that a particular case would be the same elsewhere (in a large share of cases).

Lessons learned generally occur in three stages:

- **Stage of Exploring:** identifying lessons that are of value for redesigning the project or that can be used by others working in the same field.

- **Stage of Explaining:** codifying knowledge in such a way that it can easily be identified and used by others.

- **Stage of Exporting:** disseminating among other team members, management, or other organizations in the form of lessons learned, the knowledge obtained from the monitoring and evaluation work.

8. M&E Information System Design

The System for Monitoring and Evaluation of Health Reforms (SYMEHERE) is a system designed to collect information on indicators, resources and scientific research in support of the activities and outcomes of the initiatives taken by the Government of Georgia to introduce PHC reforms to improve efficiency and quality. The system would track the utilization of resources from the project and attempt to allow program managers and researchers to link resources and inputs with outcomes and the impact of the project.

The system will build on existing systems, where available and aims to be fully integrated with other existing systems that support these sectors, including epidemiological surveillance system of the SES, EpiInfo, and facility surveys, utilization statistics. Systems written in Excel, Access, and Visual Basic, and commercially developed software could also be fully integrated.

Apart from its ability to collect indicator, project and research data, SYMEHERE should be designed to address these issues of *integration* and *migration* to the Internet. This section describes the main issues associated with the design and implementation of the system.

8.1 Conceptual design of information flows

The flow of data in the system has been designed to maximize the utilization of existing systems and to minimize the need to re-input data, thereby reducing transaction costs and streamlining business process. The flow of information in the system has been separated to account for the reporting and collection differences that exist between the national programs and the specific reform initiatives.

The system is designed to capture and store information from the main sources required for an integrated M&E system. The sources of information include:

- Utilization statistics from health care providers
- Utilization statistics from the hospital level, including discharge statistics, mortality statistics and other quality indicators estimated based on hospital discharge records.
- Results from epidemiological surveillance systems.
- Laboratory, imaging and pharmacy prescriptions
- Results from specific surveys oriented to check quality, access and productivity of facilities, laboratories, hospitals and other key actors in the system
- Vital statistics regarding number of deaths and births
- Program statistics reported on the implementation of specific activities under the project.

The proposed system would monitor activity in the health sector at four levels: inputs, outputs, outcomes and impact, as described in the previous section. The indicators proposed are outlined in annex 2.   The information would flow from the clinical level in each rayon but would allow for consolidation of figures at the national level.

It is important to highlight the importance of the data collection under the surveillance systems in the health system.   Depending on how and at what velocity these systems develop, the SYMEHERE will be more or less automated.   In other words, if a fully paperless system were to be developed for epi surveillance whereby data is collected at a sub-national level directly into a relational database, then SYMEHERE could link to this source to automatically update the M&E database.   If, however, the design and implementation of these systems is delayed, then SYMEHERE will remain less automated, linking with existing sources of data or newly defined mechanisms at the national level.   The present design is based on a practical approach, given the current conditions and the institutional capacity in Georgia at the present time.

Under the proposed system, all of this data will be stored in a common database to be housed under a unique manager.   The manager will consolidate data from all of these sources in a common structure and facilitate access and analysis of this information in accordance with the system's design.

Individual users/stakeholders will be able to access the information through an internet portal prepared for this purpose.

The following graph displays the simple, schematic representation of the data flows.

Figure 7
Data flows in the proposed system
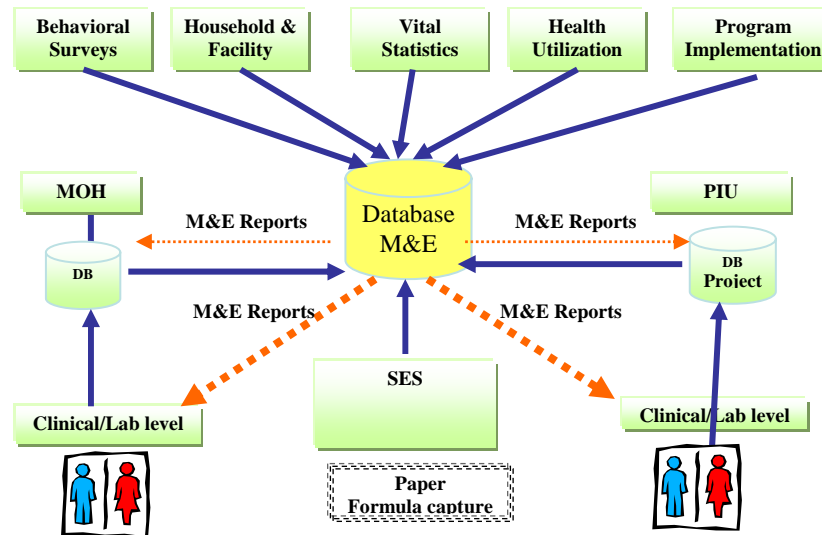
As shown, the system will integrate with the formal data collection systems as well as the data collected by the PIU regarding implementation of the PHCDP. As shown, information flows originate at the rayon level where SVPs (in a first phase) and hospitals (in a second phase), channel information up through the system following the existing data flows in the sector.

PHCDP Data Flows:

- Data on administrative indicators regarding financial flows into the PHCDP.
- Input indicators related to each of the project components
- Output indicators regarding implementation of activities under the PHCDP.
- Special research surveys financed by the PHCDP and managed by the PIU.
- Database at the PIU will be linked to the national M&E Database. The database will receive the data from the PIU and be programmed in SQL server with ample reporting possibilities.

MOH Data Flows

In the case of MOH, the system will build on the existing capacity of the SES and their decentralized data capture system.

- Utilization statistics on primary care from SVPs and from hospitals. This data would be generated at the rayon level and sent directly to the statistical integrator.
- The epidemiological surveillance data collected on morbidity and mortality.

- The data is sent or submitted electronically to a national database in the MOH.
- Data is consolidated under the SYMEHERE database.

Data can be exported to other systems such as EPI info or SAS for analysis.

8.2. Proposing an information system

The consultants have identified a software solution which meets the needs of PHCDP for the development of the M&E system. This system has been developed for the management of Balanced Scorecard framework of performance management. The system is called QPR Balanced Scorecard. The consultant has acquired a license for PHCDP, which will be transferred at the end of the consultancy if required to the program, to provide for ongoing management of the proposed M&E system.

The QPR is flexible enough to allow us to incorporate the proposed M&E framework for Georgia and meets the IT needs as well. The full technical details of the system are outlined in Annex 3.

The system is based on a unified view of data flow, as shown in the following figure. This will allow data to be incorporated, either automatically by linking with existing databases or manually through input of the data.

Figure 8
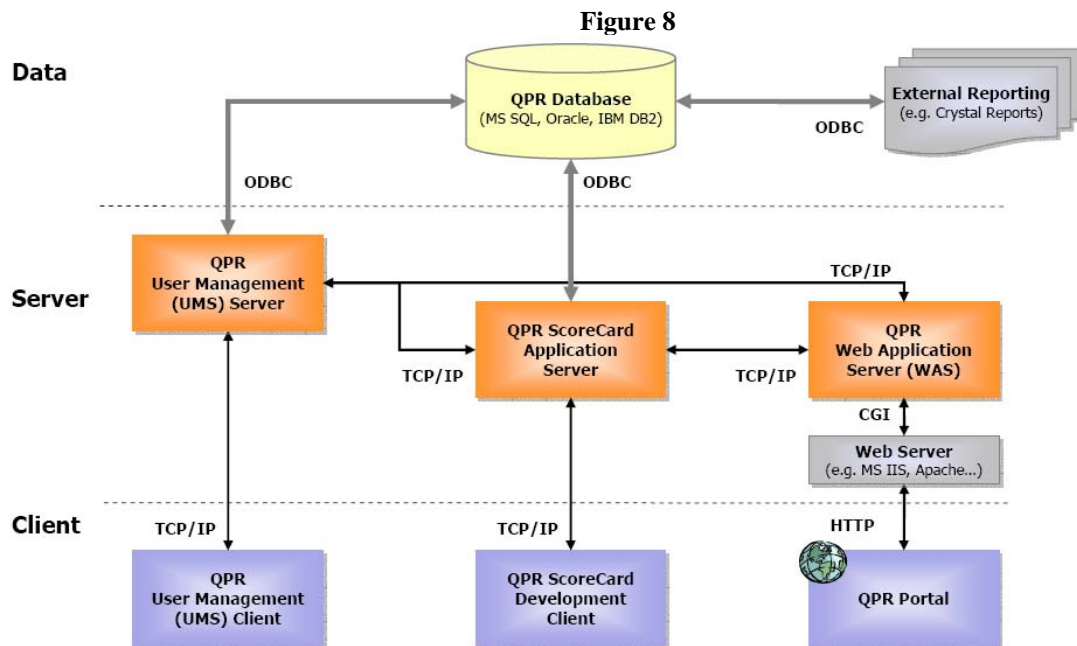
The outputs of the system allow policymakers and stakeholders to have a very visual perspective of monitoring and evaluation results. The results are shown in a cascading format

and it allows for the presentation of reports on the key performance indicators. The following figure provides an example of how results can be presented. At present these figures are populated with data from a standard framework but the consultant is in the process of setting up the existing indicators into the actual QPR system.

Figure 9
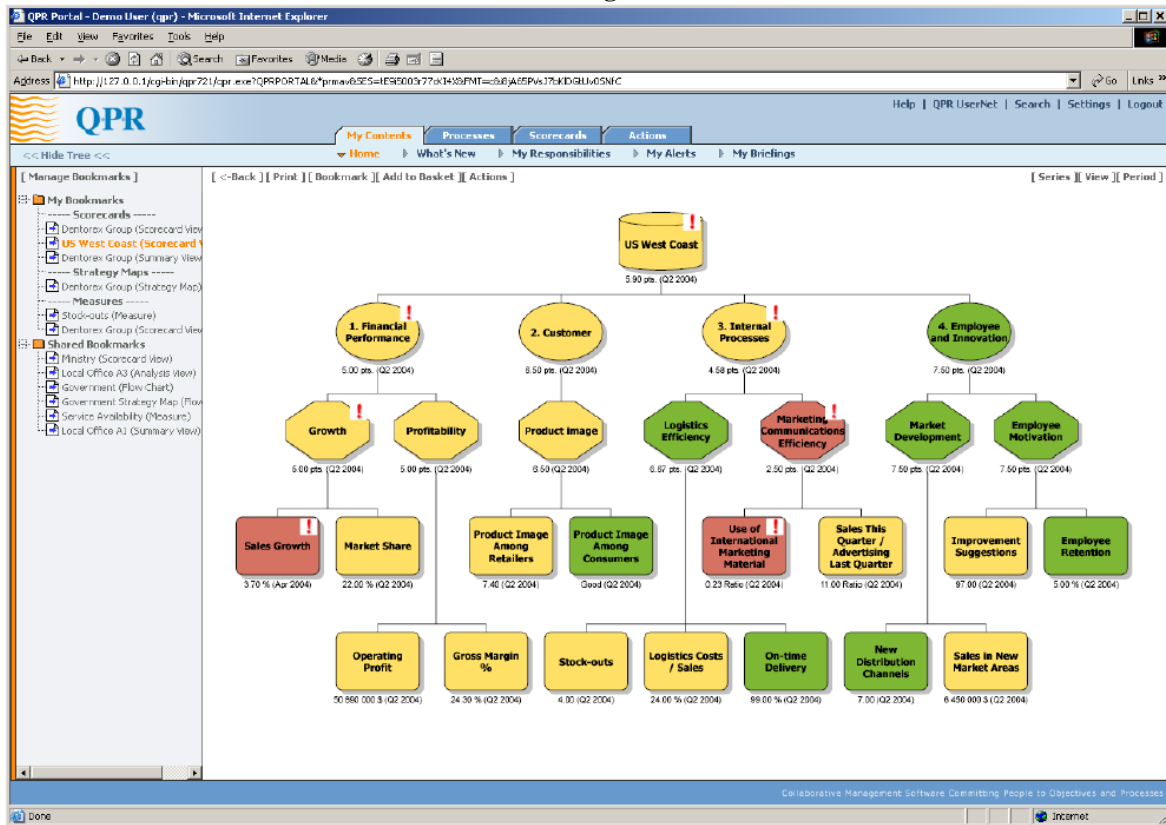
Figure 10
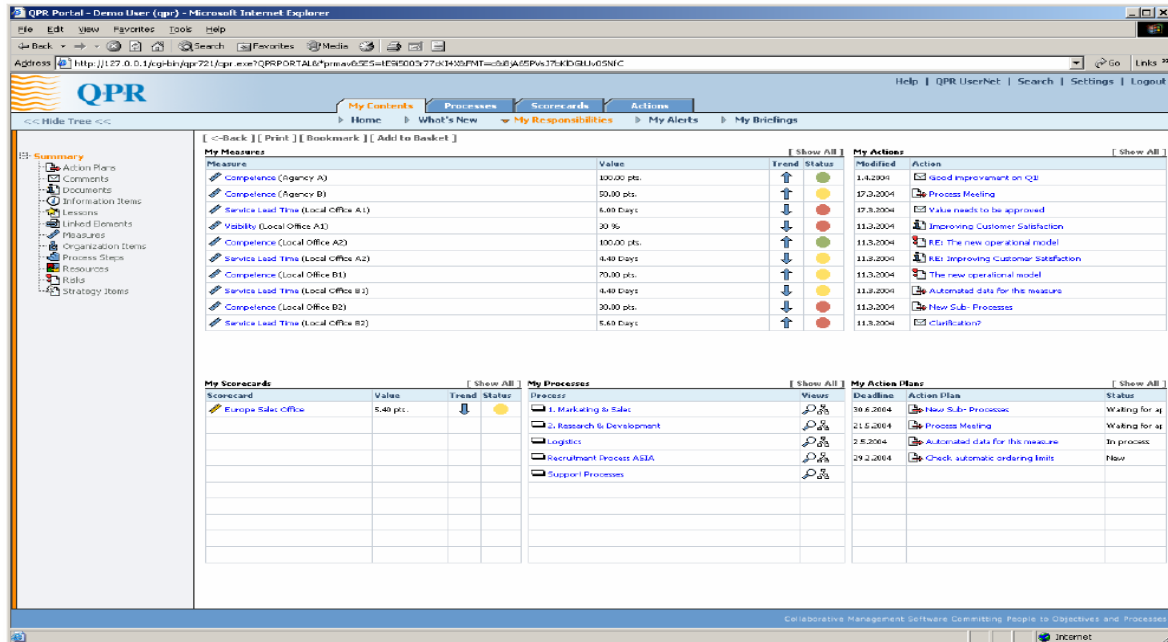
Figure 11

The previous figures show how the system will present the indicators in the M&E system. As indicated above, the final report will contain a full set of indicators proposed for the Georgia PHC program in the QPR system.

9. Next Steps and Timing

A well-designed and managed M&E program should develop the capacity of the MoHLSA to continuously monitor and evaluate progress with respect to the PHC reform main objectives. The monitoring and evaluation framework should be carried out continuously throughout the project. The flow of information, including the M&E system as a key tool, should be closely linked to the development of accountability within the government, sector, and project. The use of information can be structured and scheduled according to the needs of the participants and the availability of information.

The outcome of the reforms, in the case of PHC reforms in Georgia, is largely determined by how public agencies, public officials, and administrative / technical processes respond to the changes. Closely monitoring the indicators proposed in the M&E design will allow the MOH to hold key actors accountable for their actions and to measure the impact of the different measures on the key outcomes. In terms of next steps of the consultancy, the following aspects should be considered:

- To evaluate the proposed indicators at all levels of the system and to confirm their validity in the case of Georgia PHC reform;
- To identify the appropriate institutional roles and where the M&E unit will be housed;
- To collect base line data (this will be carried out by the MOH);
- To input all approved indicators into the M&E system proposed so that it can be viewed online;
- To prepare the detailed implementation plan which will include estimates for staffing, IT, training and other aspects required for implementation; and
- To prepare the final report including, as internet portal, the fully functioning IT system and the full implementation plan outlining future steps.

In terms of the timing required for the remaining stages of the consultancy, the following table provides a summary of activities and estimated date.

Activity	Date
To evaluate the proposed indicators at all levels of the system and to confirm their validity in the case of Georgia PHC reform;	18 November, 2005
To identify the appropriate institutional roles and where the M&E unit will be housed;	18 November, 2005
To collect base line data (this will be carried out by the MOH);	15 December, 2005
To input all approved indicators into the M&E system proposed so that it can be viewed online;	18 November, 2005
To prepare the detailed implementation plan which will include estimates for staffing, IT, training and other aspects required for implementation; and	18 November, 2005
To prepare the final report including, as internet portal, the fully functioning IT system and the full implementation plan outlining future steps.	25 November, 2005
Final visit to present final report and functioning M&E system	11-14 December, 2005

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Annexes

ANNEX 1
LOG-FRAMES

(the log frames are contained in attached excel spreadsheets)

ANNEX 2
KEY PERFOMANCE INDICATORS

(the indicators are also contained in attached excel spreadsheets)

Key Performance Indicators

Strategic Area	Indicator	Type of Indicator
Improving health status	% of specialists trained on public management and health	Input
Improving health status	% of health workers that participate in a seminar or course on public health and management	Input
Health Services Efficiency	% of SVPs that have received training or educational work-shops and courses on financing and management for SVPs	Input
Improved quality of PHC services	# of GP training courses on the basis of 10-months program	Input
Improved quality of PHC services	# GPs participating in Short-term courses for GPs on continuous medical education	Input
Improved quality of PHC services	% of GPs that finish training course	Input
Improved quality of PHC services	% of SVPs that have at least 80% of the required essential drugs list	Input
Improved quality of PHC services	% of SVPs that have at least 80% of injectable essential medicines	Input
Improving health status	% of children vaccinated against: ARVI, Measles, Diptheria, Polio, Tetanus, TB and Hepatitis B	Output
Improving health status	% of newborns vaccinated against Hepatitis B	Output
Improving health service access	% of population registered with SVP	Output
Improving health service access	Average number of consults per person per year (PHC level)	Output
Improving health service access	Proportion of successive to new visits	Output
Improving health services efficiency	GP visits per 1,000 registered population	Output
Improving health services efficiency	GP referals per 1,000 affiliated population	Output
PHC System Sustainability	% of recurrent expenses for PHC of the total oblasts health budget (recurrent expenditures)	Output
PHC System Sustainability	% of expenditure for outpatient care (PHC + specialist outpatient)	Output
Improving quality	% of people surveyed that are satisfied or highly satisfied with SVP services	Output
Improving quality	% of people surveyed that are satisfied or highly satisfied with hospital services	Output
Project Management	# of community based grants implemented	Output

Strategic Area	Indicator	Type of Indicator
Project Management	M&E system functioning and have carried out 2 house hold surveys + 2 facility surveys	Output
Improving health status	% of all pregnant women that received at least 6 prenatal visits prior to birth	Outcome
Improving health status	% of pregnant women that have access to free HIV Testing	Outcome
Improving health status	% of pregnant women with HIV/AIDS that have access to MTCT protocol	Outcome
Improving health status	% of high risk groups that are covered by preventive programs	Outcome
Improving health status	% of population covered by DOTS	Outcome
Improving health status	% of pregnant women with anemia	Outcome
Improving health services access	Out-of-pocket expenditures as share of total health expenditures	Outcome
Improving health services efficiency	Share of the raions that have rationalized their provider network	Outcome
General macro conditiions	Ministry of Health expenditure on health (real terms US$)	Outcome
General macro conditiions	Total health expenditure per capita (real terms US$)	Outcome
Project Management	ADB disbursement performance	Outcome
Project Management	WB disbursement performance	Outcome
Improving health services access	Share of population with access to health care	Impact
PHC System Sustainability	Share of total public health expenditure allocated to PHC (recurrent spending only)	Impact

Administrative/Management Indicators

Indicator	Type of Indicator
> Average # of months from RFP to signature of contract for goods procurement bidding process	Input
> Equipment, Average # of days from customs reception to distribution in regions	Input
> Average # months from RFP to signature of contract for consulting services procurement	Input
> Develop a detailed table of financial expenditures, by category and by region.	Input
> % of Financial Management Reports (FMR) that are delivered on time to the WB/ADB, respectively	Input
> % of Project Management Reports (PMR) that are delivered on time to the WB/ADB, respectively	Input
> Total local contribution for co-financing in US$	Input
> Co-financing by disbursement category	Input
Total US$ spent by disbursement category.	Output
Total US$ spent by disbursement category.	Output
% of total project expenses financed by local contribution.	Output
Share of Procurement processes that result in signature of contract with no procedural errors.	Outcome
Improved Financial monitoring and control.	Outcome
EU disbursement performance.	Outcome
USAID disbursement performance.	Outcome
DFID disbursement performance	Outcome
WB disbursement performance.	Outcome
Government maintains financial commitment to project through continuous financing of counterpart funds.	Outcome
Projects achieve 100% disbursement within agreed project timetable.	Impact

Access Indicators

		Access		
Input	**Output**	**Outcome**	**Impact**
% of primary care establishments with an established system to register population	% of population registered with PHC facility	Out-of-pocket expenditures as share of total health expenditures	Share of population with access to health care
Population per PHC nurse	% of population living within 1,5 km distance from PHC facility	Reduced burden on families of out-of-pocket health expenditures.	% of individuals in the poorest 40% of population that pay for health services
Spending on construction of new PHC facility	% of PHC facility with GP at least 3 days per week	Approximately 50 percent of the population with access to a PHC clinic within 30 minutes of walking or other transportation	% of population improved knowledge and behaviour towards a more healthy lifestyles (smoking, diet, # of check-ups)
# of New PHC facilities constructed	Population per PHC facility doctor	Population with access to PHC services completing at least three visits per capita per year	% of population given advice on the health lifestyles
Average cost per new PHC facility constructed	Average number of consults per person per year (PHC level)	Annual user fee income	
Spending on reconstruction of reorganized PHC facility (US$)	% of PHC facilities that have received complete equipment package	Income by sources of funds	
# of reorganized PHC facilities reconstructed	% of PHC facilities that have appropriate availability of supply of essential drugs		
Average cost per reconstruction of reorganized PHC facility			
Spending on equipment for PHC facility			
% of total PHC facility with adequate medical equipment			
Per capita spending on essential drugs at PHC facility level			
% of drugs in essential package procured and delivered			
% of increase in total health expenditure per capita			
Volume of government funded PHC services being delivered			
Share of total public health expenditure allocated to PHC increases			
Ratio of GP:Nurses			

Equity Indicators

Equity			
Input	**Output**	**Outcome**	**Impact**
Share of all PHC facilities involved in restructuring process (closure and/or reconstruction)	Immunization coverage per region	% Increase of the # of people who seek care first at PHC level by the end of the project	Peri-natal mortality rate by canton, socio-economic status, rural/urban and race
# Plan of shift in resource flows towards regions with greatest health needs	GP visits per region	By the end of the project the IEC has promoted the PHC effectively reaching at least 90 of the target population	Infant mortality rate by canton, socio-economic status, rural/urban and race
FM physicians deployed to rural PHC facilities	Public subsidy per quintile	% increase in the proportion of infants in the population that receive immunization (DPT3) on time	Childhood mortality rate by canton, socio-economic status, rural/urban and race
Public spending in PHC per region	Consultations per quintile	% increase in the proportion of pregnant women who have had at least 4 prenatal visits	Maternal mortality rate by canton, socio-economic status, rural/urban and race
Investment in PHC services per capita per region		% increase in the proportion of adult patients seen in refurbished PHC clinics for whom blood pressure is recorded in patients' medical records	Improved knowledge and practice of practices related to health lifestyles (smoking, diet,wellbeing check-ups)
Availability of GP per region			

Quality Indicators

Quality			
Input	**Output**	**Outcome**	**Impact**
Spending on GP training	# of trained GPs who work in PHC facilities	% of PHC facilities with a GP that has been trained	Share of population covered by a PHC facility with a GP that has undergone training
Spending on TOT	% of patients per PHC facility who got medical treatment according to national treatment protocols	% of GPs trained that are satisfied or highly satisfied with training course	
Spending on Nurse training	a. IMCI	% of Nurses trained that are satisfied or highly satisfied with training course	
% of PHC facilities that have at least 80% of the required basic equipment	B. cardiovascular diseases	% of population with access to an PHC facility that has improved quality standards.	
% of PHC facilities that have at least 80% of the required essential drugs list	c. Anemia	% of PHC facilitys that have implemented a continuous quality improvement (CQI)	
% of PHC facilities that have at least 80% of	d. respiratory organs and etc.	Improve rationale drug use	
% of PHC facilities that have less than 10%	# Prevention and education activities for the	Improved client satisfaction	
% PHC facilities that apply clinical protocols	# Plan for promoting healthy life styles in adolescents	Number of activities of prevention and	
% of PHC facilities that have evidence of a system for suggestion in facility	# Plan for promoting healthy life styles in persons of 60 years and over	% of achievement of program performance indicators	
Undergraduate and postgraduate family doctor, nurse and manager curriculum developed	% of PHC facility Visits that prescribe antiobiotic	Health Promotion quality indicators	
% PHC facilities with systems for quality control, accreditation and performance management	% of PHC facility visits that result in injections	Obesity prevalence	
% center with an Office for evaluating Health Services	% decrease in informal OOPs by EoP according to respondents	People with a body mass index greater than or equal to 30	
# of GP training courses on the basis of 10-months	% of PHC facilities providing prevention and	Smoking rate	
# GPs participating in Short-term courses for GPs on continuous medical education	% increase in the number of cases managed according to internationally and nationally approved treatment	Diabetes prevalence	
% of GPs that finish training course	% increase in the number of appropriate referrals (appropriate defined according to treatment protocols)	Gonorrhoea/Chlamydia rates	
# of GPs participating in Study tours	% decrease of ARI/DD cases referred to the hospital		
# of nurses participating in Study tours	Quality evaluations		
# of nurses trained in FP (family practice)	Number of interviewed people		
% of PHC facilities with a trained nurse	System for suggestions/complaints in place		
# of TOTs trained	Number of complaints per 1,000 members		
# of nurses trained	Number of suggestions per 1,000 members		
% of Nurses that finish training course	Number of complaints per 1000 members		
% of TOT that complete program	Number of suggestions		
# of physicians undergoing training on CQI	Number of complaints resolved		
# of nurses undergoing training on CQI	Number of suggestions implemented		
	% of satisfied population		
	% of very satisfied population		

Efficiency Indicators

Efficiency			
Input	**Output**	**Outcome**	**Impact**
Percent of lab equipment required for epid. Surveillance system that have been procured	% of visits to PHC from chronic (non acute) patients	Share of the raions that have rationalized their provider network	Share of all PHC facilities involved in restructuring process (closure and/or reconstruction)
Share of Oblasts that have an approved rationalization plan	% preventive visits	Improved capacity of PHC to resolve healthcare problems	Infant mortality rates
Share of oblasts that have received training on management information system	% visits at home	Reduction in average cost per person	
Share of oblasts that have developed computer model on rationalization	GP visits per 1,000 registered population	Cervix-cancer incidence rates	
% of PHC facilities personnel who had training on "Clinical Informational System" CIS	GP referals per 1,000 affiliated population	Child-related diseases incidence rates	
# of Cabinet of Ministers, MOH and other regulations approved on PHC	Prescriptions per 1,000 registered population	Proportion of health sector financing by source	
% of PHC facilities that have received training or educational work-shops and courses on financing and management for PHC facilities	Transportation by ambulance per 100 persons		
% of PHC facilities with a financial manager	Laboratory exams per 1,000 affiliates		
· Cost of clinical staff as % total costs	Diagnostic tests per 1000 affiliates		
· Average remuneration of GP	Influenza vaccination > 65 years		
· Average remuneration of a nurse	Childhood immunizations rate **(vaccination of child population)**		
· % drug spending	proportion of pregnant women who have had at least 4 prenatal visits		
· % medical equipment and infrastructu	Percentage of women 25-64 screened for cervical abnormalities **(womb cancer screening)**		
% prescription of generics			
Antibiotics prescription rate			

Sustainability Indicators

Sustainability			
Input	Output	Outcome	Impact
% of expenses for the staff salary of the total PHC facility budget.	% of recurrent expenses for PHC of the total oblasts health budget (recurrent expenditures)	Financial expenses of PHC facility per capita per year	Share of total public health expenditure allocated to PHC (recurrent spending only)
Average expenditures as % average revenues per PHC facility	% of expenditure for outpatient care (PHC + specialist outpatient)		
Cost of one laboratory exam per PHC facility	Average Cost per visit to PHC facility		
Expenses per capita on antibiotics.			
Expenses per capita on Pharmacy.			
Expenses per capita on Laboratory.			
PHC management strategies and plans			
PHC pharmaceutical policies developed			
Number of agreements on provider payment regimes			
Medium Term Expenditure Framework budget management system completed			
Number of systems for forward planning and provision of PHC work force			

Community Indicators

Community participation		
Input	Output	Outcome
	Number of regions in which community decision-making structures operate to discuss health concerns or decide program management issues, or both.	
	Percentage of constructed water supply facilities maintained by the community (CIWG).	
	Policy dialogues and formulation involves NGOs, community leaders, and representatives of the private sector and special interest groups	
	# of community projects by type of projects	
	Number of community-based programs supporting primary health care.	

Annex 3:
M&E Information System

QPR7.

QPR ScoreCard

White Paper

Collaborative Management Software
Committing People to Objectives and Processes

Table of Contents

1   Executive Overview

In today's highly dynamic business environment strategy has never been more important. To succeed organizations need to continuously reshape themselves. This requires tremendous strategic agility as well as superior execution of the chosen strategy. Organizations that fail to engage their people to strategy execution fail to achieve their full potential. Organizational success requires that employees are truly engaged and committed to their work and share the values and goals of the organization.

QPR Software is the leading provider of Collaborative Management software products. With QPR products world-class organizations collaboratively plan, implement, communicate and commit people to objectives and processes. QPR seamlessly combines Corporate Performance Management (QPR ScoreCard) and Process Management (QPR ProcessGuide) into one Collaborative Management solution.

Create Strategy Awareness
QPR ScoreCard is a quick and easy way to communicate the strategy and the objectives to all employees. The automatic web publishing features of QPR ScoreCard bring personalized strategic objectives to every employee's desktop from the very beginning of the implementation process.

Commit People to Objectives
QPR ScoreCard helps you motivate your personnel to work for reaching mutual goals by allowing them to examine the organization's vision, strategy, and operational targets. It enables personnel at all levels of your organization to identify their individual responsibilities and targets so that strategy becomes understandable in an everyday operational sense.

Monitor, Analyze and Benchmark Performance
QPR ScoreCard provides senior executives, managers and employees with a visual, real-time overview of their organization's performance through dynamic, predefined reports and graphs. QPR ScoreCard opens a performance portal integrating information from multiple sources and turning masses of data into powerful management information.

Execute Strategy
QPR ScoreCard is designed to drive organizational change, achieve continuous improvement and exceed performance targets. QPR provides you with the competitive advantage that your organization needs to succeed. QPR Collaborative Management Software is an excellent steering system for business management that commits people to objectives and processes.

Integrate Performance Management to Your Organization
QPR enables you to leverage your existing systems and build a company-wide performance management system. QPR ScoreCard can be integrated with various databases and IT systems such as Oracle® and Microsoft® SQL Server™, allowing you to automatically update performance data in order to provide you with the current status of your organization's performance.

Get Results Fast
QPR ScoreCard offers a very fast way to implement an automated collaborative management solution. The easy-to-use development interface lets you implement your scorecards as you define them. QPR ScoreCard enables you to start enjoying the benefits of your performance management system from the first day of implementation.

Web-enabled Multi-tier Architecture
QPR ScoreCard's unique architecture leverages the power of the Internet and intranet, creating a world of new opportunities in both internal and external communications. The distributed, multi-user system allows all authorized users within the organization to view the entire performance management model, discuss the performance and strategy as well as input performance data through a web browser. Information security is ensured by individual authentication and user rights.

QPR Software Plc
QPR Software is the leading provider of Collaborative Management software products. QPR is established 1991 and headquartered in Helsinki, Finland. QPR develops and delivers solutions together with a practiced partner network in 45 countries. The QPR Community consists of more than a thousand professionals serving customers all around the world. More Information available at http://www.qpr.com

QPR 7 – Collaborative Management Software Committing People to Objectives and Processes

2   Collaborative Management

In today's highly dynamic business environment strategy has never been more important. To succeed organizations need to continuously reshape themselves. This requires tremendous strategic agility as well as superior execution of the chosen strategy. The fathers of the Balanced Scorecard (BSC) Robert Kaplan and David P. Norton have thus concluded: [1]

"...the ability to execute strategy is more important than the strategy in itself"

Even though the importance of strategy execution is widely recognized, most organizations fail to deliver it. Research show that more than 90% of organizations fail to execute their strategies. Actually more than 95% of the typical workforce don't even understand the strategy, let alone execute it. As a result these organizations that fail to engage their people to strategy execution fail to achieve their full potential. [1]

2.1   Why Engage Employees?

Intuition tells us that when employees are truly engaged in their work and in the values and goals of the organization, their behavior will generally be support organizational success. It seems equally self-evident that disengaged employees are unlikely to give their best. In order to confirm this intuition several studies have been conducted. Research indeed indicates that engaged employees are more loyal—and the greater the number of more loyal employees, the lower the costs of recruiting, hiring, training, and developing, not to mention the positive effects on productivity. Engaged employees are also more willing to give extra effort when the organization needs it. Engaged employees in customer-facing roles are more likely to treat customers in ways that positively influence customer satisfaction.

ISR (International Survey Research) conducted a study in 2002 using data from over 360 000 employees from 41 companies in the world's ten largest economies, examining the relationship between different levels of employee engagement and corporate financial performance, measured by change in operating margin and change in net profit margin. Comparing high-engagement to low-engagement companies over this three-year period, the differences were substantial: Clearly, high commitment organizations outperform low commitment organizations. [2]

Impact of Engagement on Business Performance
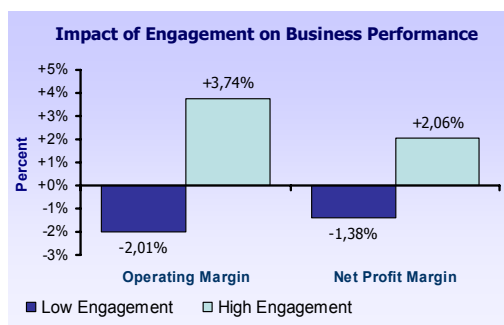
2.2   What is Collaborative Management?

Collaborative Management aims to transform organizations from clumsy "oil tankers" to agile "fish shoals" by engaging people to align their activities to strategy. This enables organizations to react fast to changes in the business environment without time and resource consuming steering maneuvers. In this manner agility can be achieved without losing focus and control and without creating organizational volatility.

How can organizations promote and enhance the level of agility and engagement to strategy execution amongst their people? Three key drivers in creating agility and engagement to strategy are:

- The quality of the organization's leadership.

- Organizational and individual development

- Employee empowerment.

Collaborate

"to work jointly with others or together – especially in an intellectual endeavor"

- The Merriam-Webster Dictionary

These three key drivers are also the key elements of ***Collaborative Management.***

Implementing Collaborative management significantly improves the quality of leadership by the means of Performance and Process management. It gives the organization an understandable direction, definite priorities and clear goals.

Collaborative management also brings transparency and accountability to the leadership as well as introduces consistent and efficient management practices. Leadership is often thought of as an individual skill. This kind of thinking leads many organizations to miss the bigger picture: what is their collective

capacity to lead? This is the organization's leadership capability. It includes both the effective behaviors and the effective processes of leadership.

Organizational and individual development are in the heart of every modern leadership philosophy. Collaborative Management takes the development effort to a new level by engaging everyone in the organization to develop themselves as well as take the initiative into organizational improvement. It prioritizes the improvement activities and links them to targets. In addition, Collaborative Management also makes realization and follow-up of development initiatives systematic. Organizations should provide employees with opportunities to develop their abilities, learn new skills, acquire new knowledge, and realize their creative potential. The people should be regarded as assets to be invested in, not as costs to be cut.

Empowered employees become committed employees. They are respected for their talents, and trusted to discharge their responsibilities in the way they see fit. High commitment organizations vest authority in their front-line staff. They have systematic processes for risk management and can thus promote "challenge" and "risk-taking" cultures, where employees are encouraged to dissent from the prevailing orthodoxy, and innovate quickly and flexibly to meet the demands of their customers and the marketplace.

Organizations today collect and register an enormous amount of business and operational data and make this information available to people. However, the usage of this data is often limited by the fact that only very few people know what information is available and where to find it. The usage of this information is thus limited to low level operational steering of the processes. Collaborative Management sets out to actively transform the information into knowledge communicating the information to all the relevant people and by creating insight by involving people to review, comment and analyze the information.

The most crucial element of Collaborative Management is that it challenges the organization to make decisions and take action based on this insight.
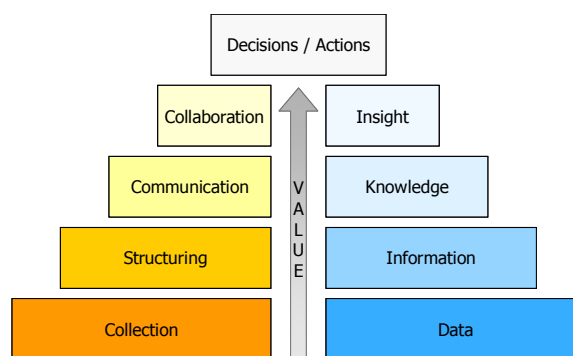
Traditional Corporate Performance Management (CPM) relies heavily on creating organizational success by providing decision-makers with detailed data about the activities and performance of the organization as well as strict top-down target setting. Collaborative management builds on the same data, but sets out to cultivate that data into knowledge by letting people collaboratively process the information and by letting people participate in the measure definition and target setting process, thus also participate in giving strategic direction to the organization. Replacing traditional top-down management with transparent and empowering leadership will create exceptional employee commitment. High levels of commitment are achieved not by telling employees what to think, but by listening to what they have to say.

Leadership	Development	Empowerment
Translate the strategy into staff's "everyday speak"	Emphasize development by setting clear measurable targets.	Two-way communication and feedback
Making strategy everyone's job	Systemize gathering of initiatives and action plans.	Delegate responsibility to the operative level.
Understand the cause and effect of linkages between strategy/process capability	Plan and improve processes	Engage people in Organizational Development
Creating transparency	Understand the cause and effect of linkages between strategy/process capability	Execute accountability with performance contracts
Creating consistent management and review processes	An on-going feedback mechanism to make real-time, mid-course adjustments to priorities	"Now I understand how I contribute to the business strategy — and the bottom line!"

2.3   Performance Management

Gartner Group defines corporate performance management in the following manner: Corporate performance management (CPM) combines business intelligence (BI) with performance methodologies, processes and metrics. Enterprises can use CPM to leverage BI initiatives and gain insight into their business. [3] Understanding the convergence between these aspects of CPM is the key to enterprise success – enterprises that effectively deploy CPM solutions will outperform their industry peers.

Gartner further states that there is no single CPM methodology because CPM spans the complete management control cycle. Many of the methodologies have existed for decades, such as activity-based costing, or are popular already, such as the Balanced Scorecard (BSC). [3]

Performance management helps your organization

- understand where it is headed and what it wants to achieve - *Planning*

- determine the extent to which your goals are being met - *Measuring and reporting*

- identify areas requiring improvement and to take right action - *Managing opportunity and risk*

2.3.1   The Balanced Scorecard as a Tool for Performance Management

The Balanced Scorecard (BSC) is the most popular performance management methodology. The BSC is an organizational framework for executing and managing strategy at all levels of an enterprise by linking objectives, initiatives, and measures to an organization's strategy. The scorecard provides an enterprise view of an organization's overall performance. It integrates financial measures with other key performance indicators around customer perspectives, internal business processes, and organizational growth, learning, and innovation. Since the concept was introduced in 1992, Balanced Scorecards have been implemented at corporate, strategic business unit, shared service function, and individual levels at hundreds of organizations in both the private and public sectors — worldwide.

The Balanced Scorecard is not another measurement tool. Rather it is a logical design for translating strategy into bottom line impact. When fully deployed, the Balanced Scorecard transforms strategic planning from an academic exercise into the nervous center of an enterprise.

Why Scorecarding?	To "Scorecard" Successfully	What You'll Get
Translate strategy to action, making strategy everyone's job	Reach cross-functional agreement on strategic direction	Alignment and focus of the organization around a common purpose and strategic direction
Manage the intangible assets e.g. customer loyalty, innovation, employee capabilities	Translate the strategy into staff's "everyday speak"	Resource prioritization and allocation
Leverage cross functionality without changing the structure of the business	Understand the cause and effect of linkages between strategy/process capability	An on-going feedback mechanism to make real-time, mid-course adjustments to priorities
Measure what matters the critical few vs. the important many — in real-time, not just after the fact	Identify the measures of success; critical strategic initiatives; and process drivers	A set of balanced metrics
Create a daily management system for the day-to-day navigation of the business	Set up performance contracts	"Now I understand how I contribute to the business strategy — and the bottom line!"
	Cascade the Scorecard into the organization	

2.3.2   Other Performance Management Frameworks

Organizations have more or less successfully deployed numerous different performance management frameworks, within which corporate performance can be monitored and measured. Widely recognized frameworks are e.g. The European Foundation for Quality Management (EFQM), Malcolm Baldridge, Six Sigma, Economic value-added (EVA), Value-Based Management and Intellectual Capital Management.

Collaborative Management as well as the QPR Collaboration Management Suite can be applied to successfully deploy any performance management framework.

2.4   Process Management

Business process management enables the organization to overcome its traditional functional barriers, and creates a result-oriented, market sensitive and responsive business capable of capturing the changes and holding the gains. Michael Hammer, one of the world's foremost business thinkers has concluded:

"*In order to succeed, or even survive, in today's global economy, companies must refocus and reorganize themselves around their processes: the end-to-end sequences of tasks to create customer value".* [4]

A business process is any broad collection of activities within your company that is involved in the ultimate goal of developing your product or service for the customer. Business processes are typically evaluated from the customer's point of view. Ensuring a smoothly running business process is critical in maximizing the added value you are providing to your customers. Managing the key processes efficiently is critical to the success of the company.

Managing the processes successfully can be harder than it may seem at first - mostly because processes don't stand alone, but interact with one another. Process management is therefore implemented in stages starting from the decision to become process oriented and identifying core processes. The final goal is holistic Process Management including process performance measurement and continuous improvement. The further you take your process work, the greater the potential.

When implemented Process Management provides a road map helping the organization

- to design new products and programs

- to manage suppliers and partnering processes

- to communicate consistent information throughout the firm

- to manage day-to-day activities

- to apply continuous improvement events

Manage
Manage performance and continuous improvent

Improve
Execute actions to improve lead times, optimize resources etc.

Measure & Simulate
Identify costs, lead times, quality, cost for non value adding activities, improvement potential, problem areas

Document
Improved routines, securing of quality

Identify
Increased understanding, involvement, ideas

Processes Management helps to simplify functions, provides clarity for activities to be performed, and adds focus, purpose and direction to the organization. Processes are based on fact not fiction. They validate how and why things are done and ensure that only value-added or critical activities are in place. Processes Management allows for speed and accuracy of organizations reducing the need for re-work or late changes. Furthermore it allows an organization to be nimble, agile and anticipate changes rather than react to them. All of this means that Processes Management provides opportunities for improvement within the company and helps to facilitate change when change is needed.

2.4.1   Frameworks for Process Management

Many different management methodologies have been developed to help organizations become more efficient and to improve quality. In general, the most successful methodologies require process orientation and can thus be considered as frameworks for process management.

Total Quality Management (TQM), Business Process Improvement (BPI), Business Process Reengineering (BPR), and Six Sigma have been adopted by thousands of organizations and are still helping them excel and outperform their competition.

Collaborative Management as well as the QPR Collaboration Management Suite can be applied to successfully deploy any process management framework.

3   Benefits and Features

QPR develops interactive software products that enable Collaborative Management. With QPR products organizations can commit people to objectives and processes. QPR seamlessly combines Performance Management (QPR ScoreCard) and Process Management (QPR ProcessGuide) software into one Collaborative Management solution (QPR 7).

The QPR Collaborative Management Suite allows you to define and communicate your corporate strategy and objectives on an entirely new level. It helps you to motivate your personnel to work for mutual goals by allowing them to examine the organization's vision, strategy and operational targets. The QPR Collaborative Management Suite enables personnel at all levels of your organization to identify their individual responsibilities and targets so that strategy becomes understandable in an everyday operational sense.
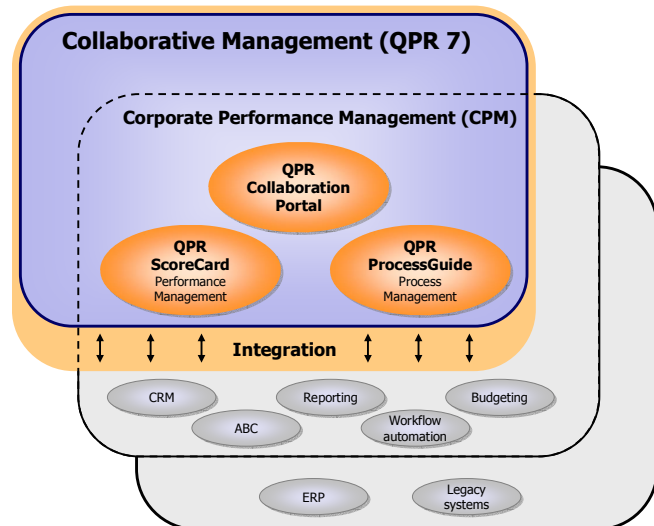
QPR ScoreCard is an automated software solution for organization-wide strategic performance management. It is an optimal tool for organizations to successfully plan, implement, communicate and commit people on organizational strategies and objectives. QPR ScoreCard makes it easier to drive organizational change, achieve continuous improvement and exceed performance targets, providing you with the competitive advantage that your organization needs to succeed. Supporting every step of Your Strategic Performance Management effort QPR ScoreCard ensures the execution of your strategy by creating strategy awareness, committing people to objectives, enabling analysis and automatic reporting of performance and integrating the BSC to Your organization. The unique combination of Performance Management (QPR ScoreCard) and Process Management (QPR ProcessGuide) ensures that all processes are aligned with strategy. It also allows you to systematically manage and develop the performance management and review processes of Your organization.
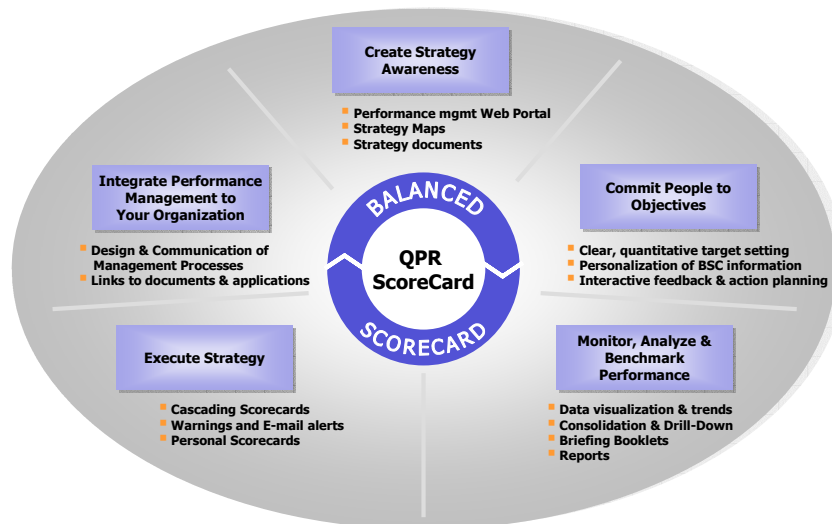
QPR ScoreCard meets the rigorous Kaplan-Norton Balanced Scorecard functional standards for BSC applications and has thus been awarded the Balanced Scorecard Collaborative Certified™ (BSCOL) mark. This ensures that the application enable end-users to achieve the full benefits of the Balanced Scorecard management process.

Is your strategy crystal-clear to everyone in your organization? Has your strategy really been turned into action? Is everyone in your organization committed to implementing your strategy? The following chapter gives you an insight to how You can execute Your strategy effectively using QPR ScoreCard and the QPR Collaboration Portal.

3.1   Create Strategy Awareness

QPR ScoreCard is a quick and easy way to communicate the strategy and the objectives to all employees. The automatic web publishing features of QPR ScoreCard bring personalized strategic objectives to every employee's desktop from the very beginning of the implementation process.

3.1.1   QPR Collaboration Portal

The QPR Collaboration Portal provides you with an interactive up-to-date delivery of management information. The QPR Collaboration Portal combines business process management (QPR ProcessGuide) uniquely with Balanced Scorecard (QPR ScoreCard) into a simple and personalized **web portal**.

Bookmarks - The QPR Collaboration Portal also contains quickly selectable bookmarks to information relevant to you. These bookmarks can be customized by the user or by the system administration.

Home Page - The opening page shows corporate information common to all users.

What's New - Shows the changes in the scorecard after your last login to the portal

My Responsibilities - Shows your own measures, the action plans allocated to you and comments to your measures as well as the comments you have added.

My Alerts – E-mail alerts enable you to react immediately to exceptional performance.

My Briefings – Briefing Booklets provide an intuitive "book"-like interface to all of your management information. Perfect for reporting and review meetings.

Actions – Enable true collaborative management by letting the entire organization to give feedback with Comments, define Action Plans, attach Documents, and Create best practice Lessons.

Search – Use the search option when you want quick results for some keyword from your Balanced Scorecard or processes.

3.1.2   Strategy Documents

Organizational visions and strategies are typically described in textual format. QPR ScoreCard lets you attach textual information in multiple different ways – each quantitative element may contain **textual elements** or **information links** to external data. In addition to this, you will be able to take advantage of the built-in file storing and web publishing system.

3.1.3   Dynamic Multi-level Strategy Maps

Strategy mapping is a tool that enables an organization to illustrate objectives, use appropriate measures to assess performance, and clarify linkages between drivers and strategic outcomes.

The Strategy map view offers the definition of cause and effect between different elements in a scorecard. This helps people to understand the strategy - how focusing on some area affects other areas. The strategy map tool also calculates the correlation factors between the elements showing you how well your strategy is succeeding.

QPR enables organizations to cascade their strategy map from the corporate level all the way to unit and even down to team or individual levels. Users can easily drill-down to their strategy map directly from the corporate Strategy Map and this way see how their objectives link to the overall objectives of the organization.
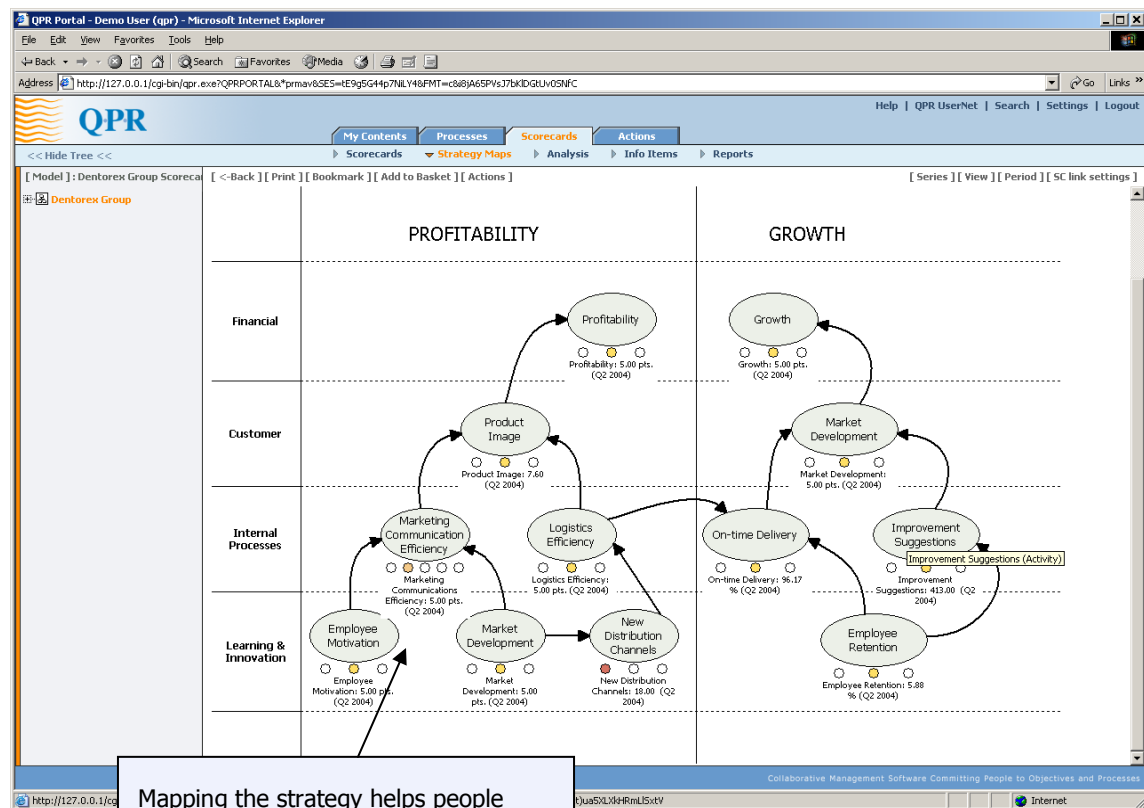
Mapping the strategy helps people understand why we do something.
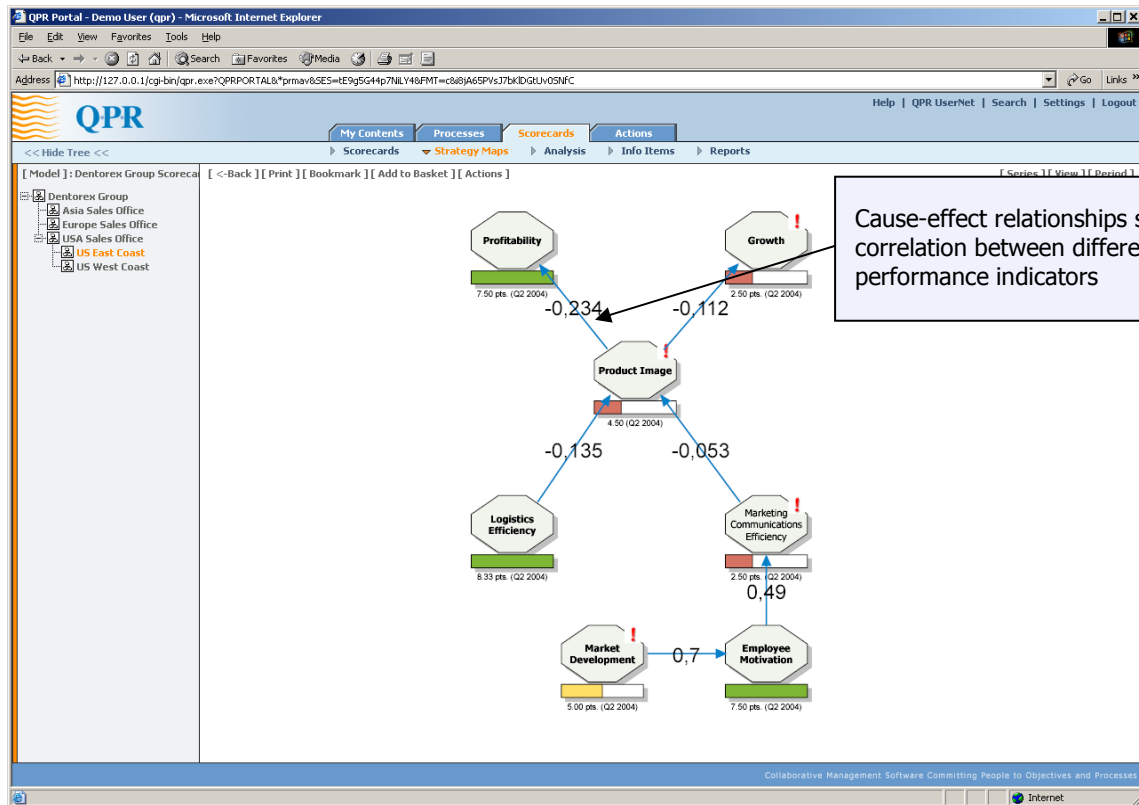
3.1.4   Graphical Scorecard View

The Graphical scorecard view offers the simplest representation of a scorecard's status. This easy-to-understand view presents the organization's status using traffic lights, gauges, or a desired symbol (such as a happy or a sad face) to indicate the status of a measure. Warning symbols alert you of exceptional performance on lower levels of the measure hierarchy.

Warning symbols reveal exceptional performance deeper down in the measure hierarchy

Scorecard view offers many different kinds of value indicators and graphical representations
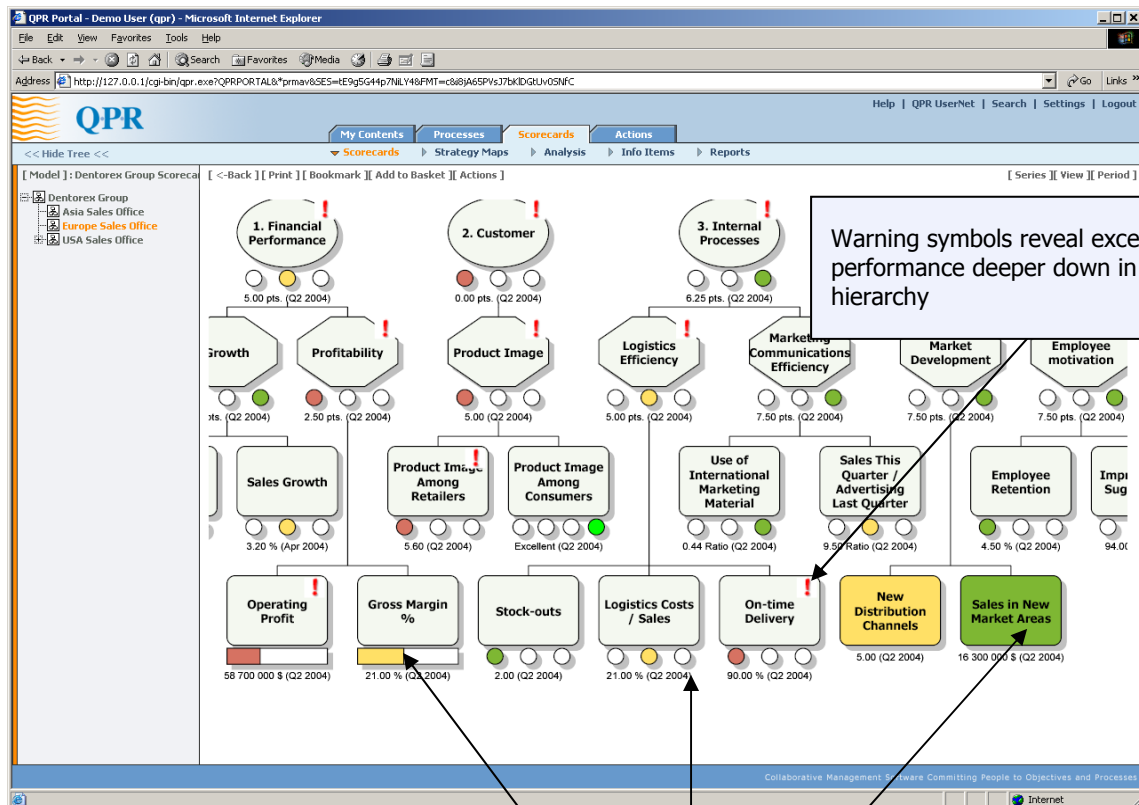
3.2   Commit People to Objectives

In order to achieve their full potential and reach their objective, organizations need to engage and commit people to the common goals of the organization. In order to commit to the objectives people need to have crystal-clear understanding of their own goals as well as the possibility to affect the goals set.

3.2.1   Clear, Quantitative and Qualitative Target Setting

With QPR ScoreCard you can set targets and monitor actual performance with both quantitative and qualitative measures. The performance measures are visualized in an intuitive and clear manner with indicators and graphs together with all the related information.

Any QPR ScoreCard view showing measurements enables you to drill down to measure details. The **element view** shows the indicator and history chart of the element as well as other detailed information. You can set **e-mail alerts** to follow the measure, you can **set targets** or **actual values** to the measure, and you can **comment** and make **action plans** to it.
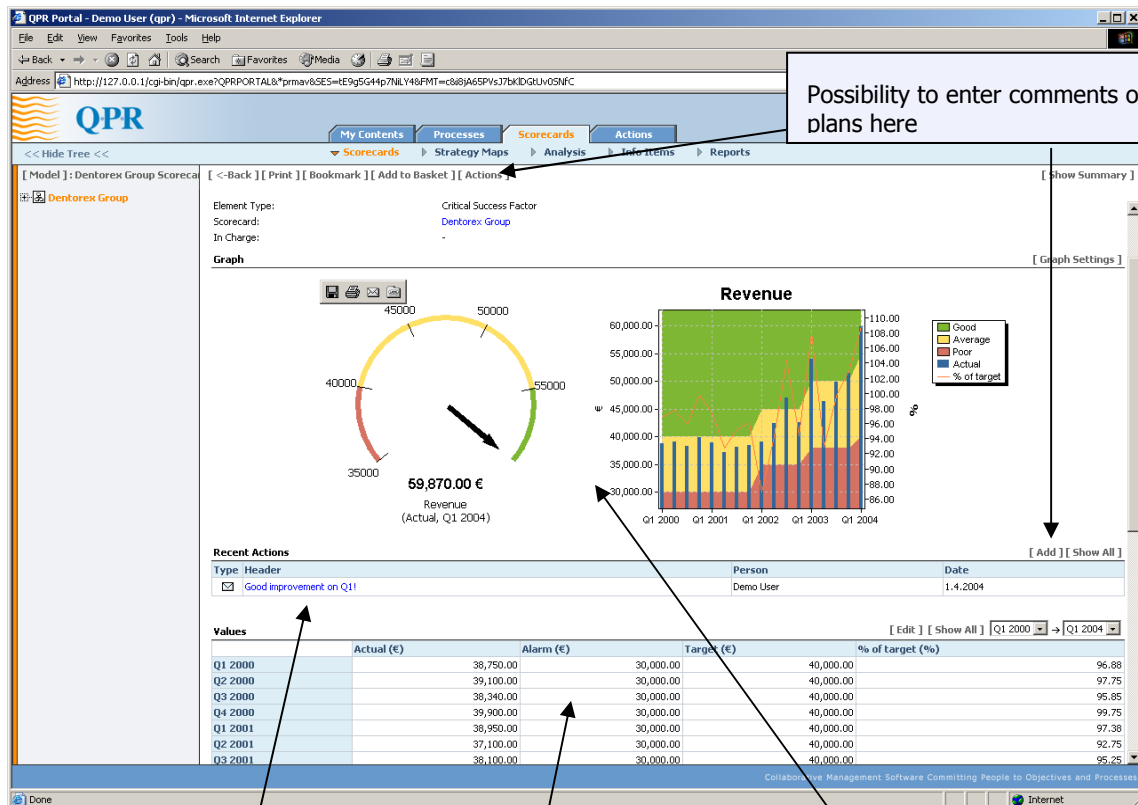
Possibility to enter comments or action plans here

Recent action plans and comments are available here

You can view and set targets, alarms and actual values here

History chart and indicator give you an overview of the current situation, historical data and the future targets

This way QPR ScoreCard enables personnel at all levels of your organization to identify their individual responsibilities and targets so that strategy becomes understandable in an everyday operational sense.

3.2.2 Personalization of BSC Information

Implementing the BSC with QPR ScoreCard brings a vast amount of business information to the desktops of each employee. Effective utilization of the information requires personalization of the information content so that the most relevant information can be easily accessed. QPR ScoreCard supports both push and pull type of personalization of information.

Users can pull information by bookmarking the most used information and adding the bookmarks to their own personal start page. Common bookmarks can also easily be published to a group of people.
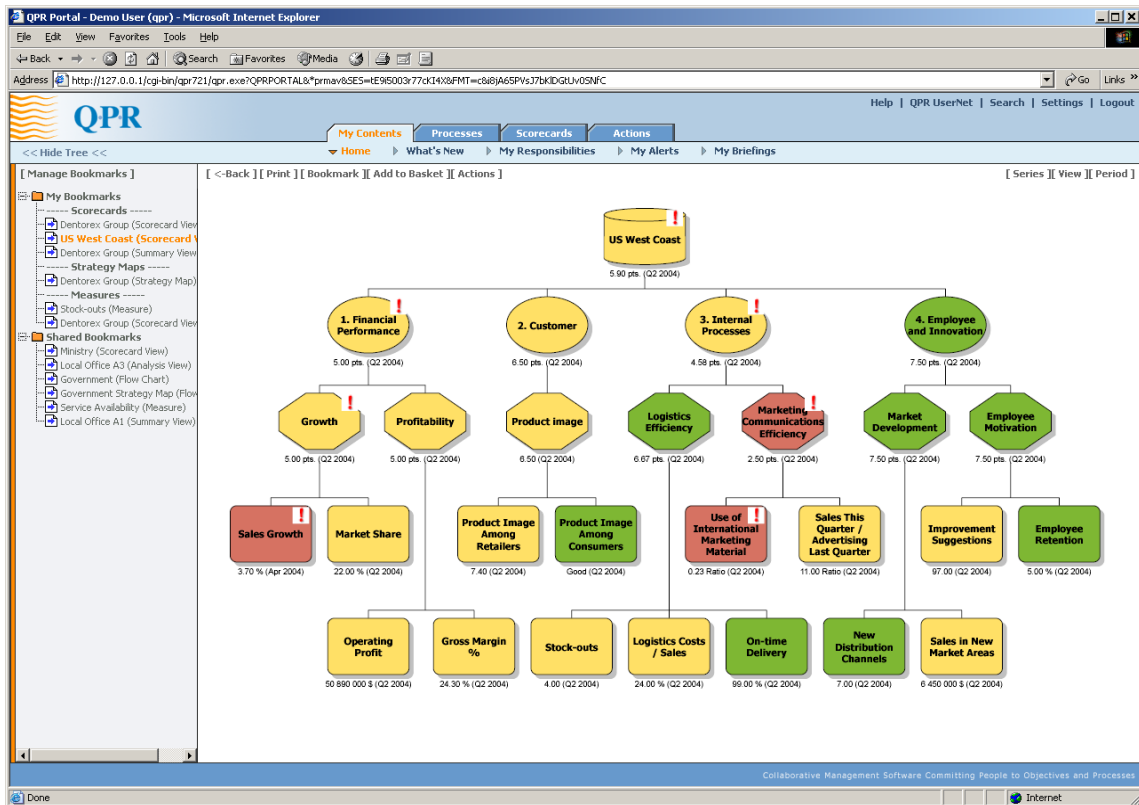
The BSC developer can push information to the users by e.g. assigning responsibilities to measures. The "My Responsibilities" view shows the user all items that she is responsible for.

3.2.3   Collaboration, Feedback & Action Planning

QPR ScoreCard links seamlessly with the QPR Collaboration Portal providing you with various ways to collaboratively manage your organization and its performance. Together they form a basis for two-way interaction between every level in the organization.

The QPR Collaboration Portal lets you give feedback by entering Comments linked to measures or a specific topic on-line. Comments can be published to everyone in the organization or just to the relevant people.

Although performance measurement in it itself is a powerful strategy execution tool, true organizational change and improvement are created through initiatives. The QPR Collaboration Portal includes extensive support for action planning. Action plans can be created on-line and linked to any level of the performance measurement system. Action plans hold all the relevant information about the action plan such as responsibilities, deadline, and progress.

Both comments and action plans can also include file attachments and can automatically be sent by email to the relevant people in the organization.

Enter action plans directly on web client – and get instant results by informing persons responsible via e-mail

3.3   Monitor, Analyze & Benchmark Performance

QPR ScoreCard provides senior executives and managers with a fast, real-time overview of their company through dynamic, readily available reports and graphs. Like an umbrella system, QPR ScoreCard integrates information from multiple sources to turn masses of data into powerful management information.

3.3.1   Data Visualization & Trends

QPR ScoreCard is highly visual tool where great emphasis has been given to presenting the performance data to users in an intuitive and easy-to-understand way. It provides many different ways to view to

performance data enabling the user to smoothly drill down from the "big picture" down to the detailed measurement information.
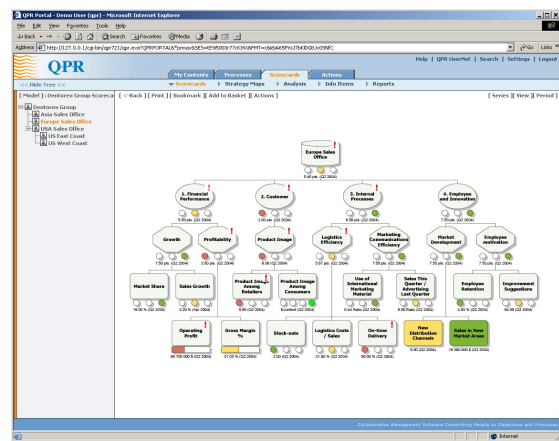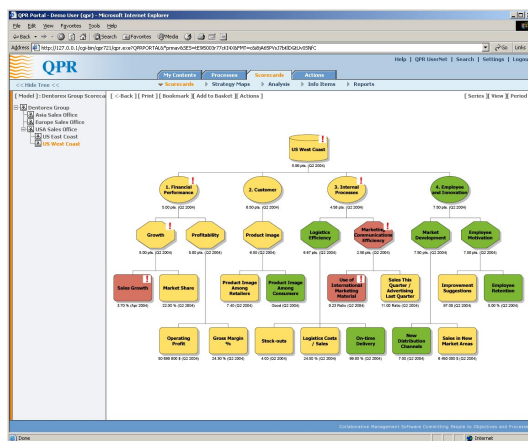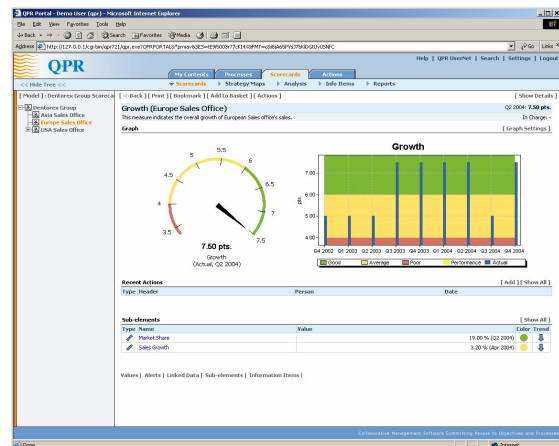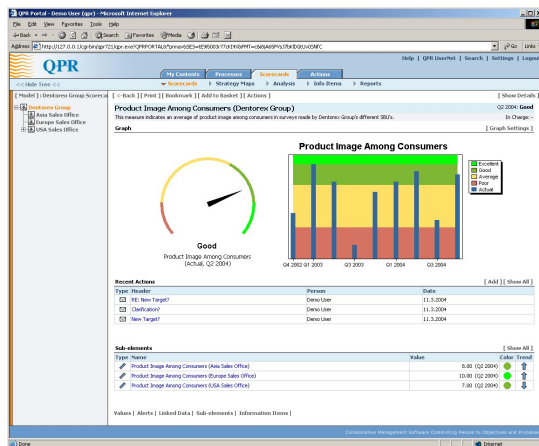
Traffic lights and gauges give instant insight in the current performance of the organization enabling fast reaction to exceptional performance. History charts deepen the insight by giving background and trend information supporting analysis and informed decision making.

3.3.2   Approval and Status Control of Measure Values

In order to ensure the correctness of the information, each target value, alarm or actual value can be set to undergo a formal approval process. Each value can be given an individual status indicating the progress of the approval process and values can be automatically locked after approval. The approval process can be applied to manually entered values as well as values obtained automatically with formulas or by automatic imports giving the organization full control over all the values in the system.

3.3.3   Consolidation & Drill-Down

To fully utilize all the information of the QPR Collaboration Portal, QPR ScoreCard offers a navigator view that you can use to explore all the information and bookmark your favorite views. This view also offers drill-down and analyzing capabilities to all kinds of information in your performance measurement model.
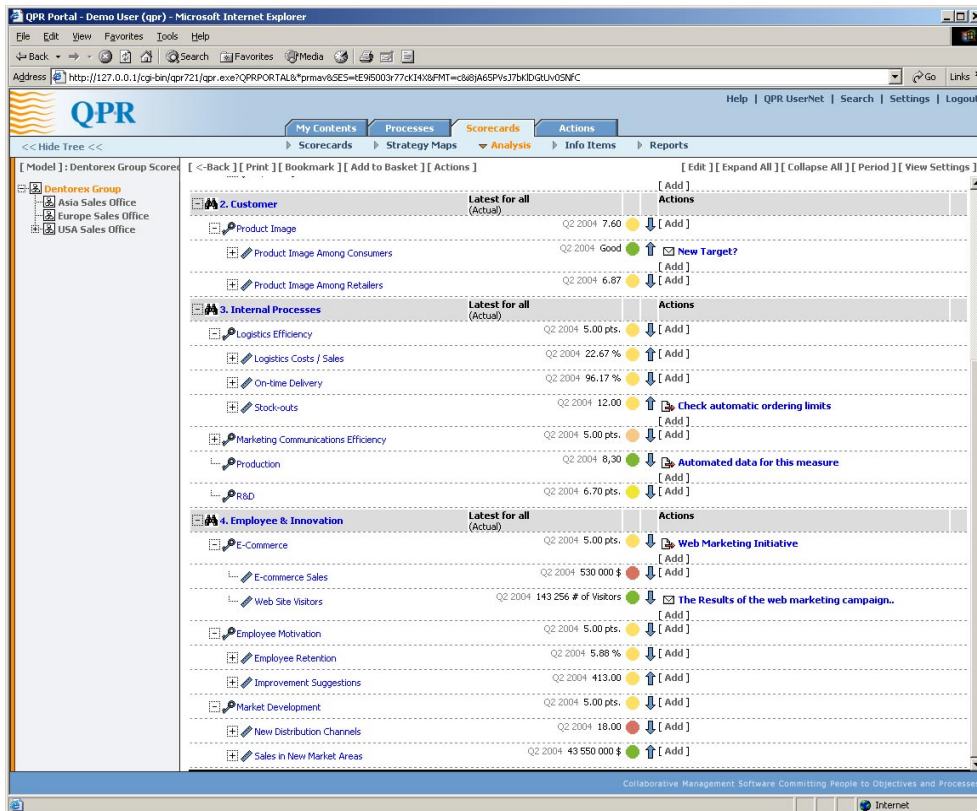
In the navigator view you have the whole scorecard hierarchy on the left side of the screen and element hierarchy of one scorecard on the right side. To the elements in a single scorecard, you have multiple options to show different kind of information from the drop-down lists. This is a perfect view for comparing the status of different measures with the color codes provided.
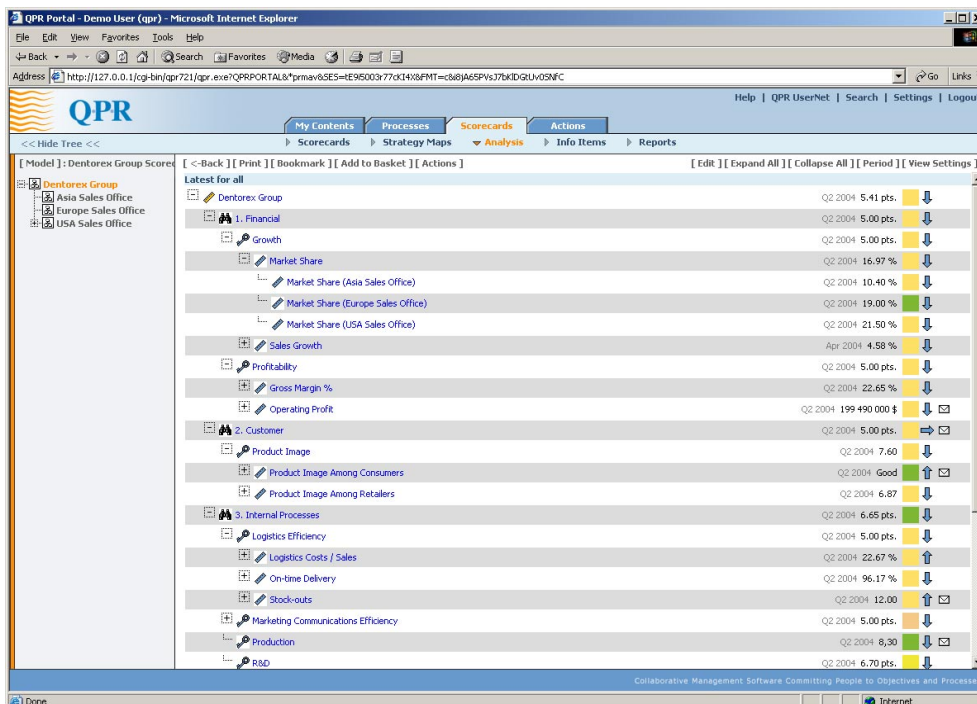
As you find a suitable view (configuration with the drop-down lists), you can bookmark that to your views in the portal.

3.3.4 Briefing Booklets

The Briefing Booklets of the QPR Collaboration Portal are the simplest interface to the information contained in the QPR ScoreCard system. Booklets provide effective change communication and periodic reporting. Briefing booklets give different types of information a common interface that is very easy to comprehend and use. If you know how to read a magazine you know how to use QPR Briefing Booklets!

Briefing booklets are the perfect medium for distributing your periodical performance reviews, creating informative agendas for review meetings or for creating workflow documents for e.g. audits or meetings.
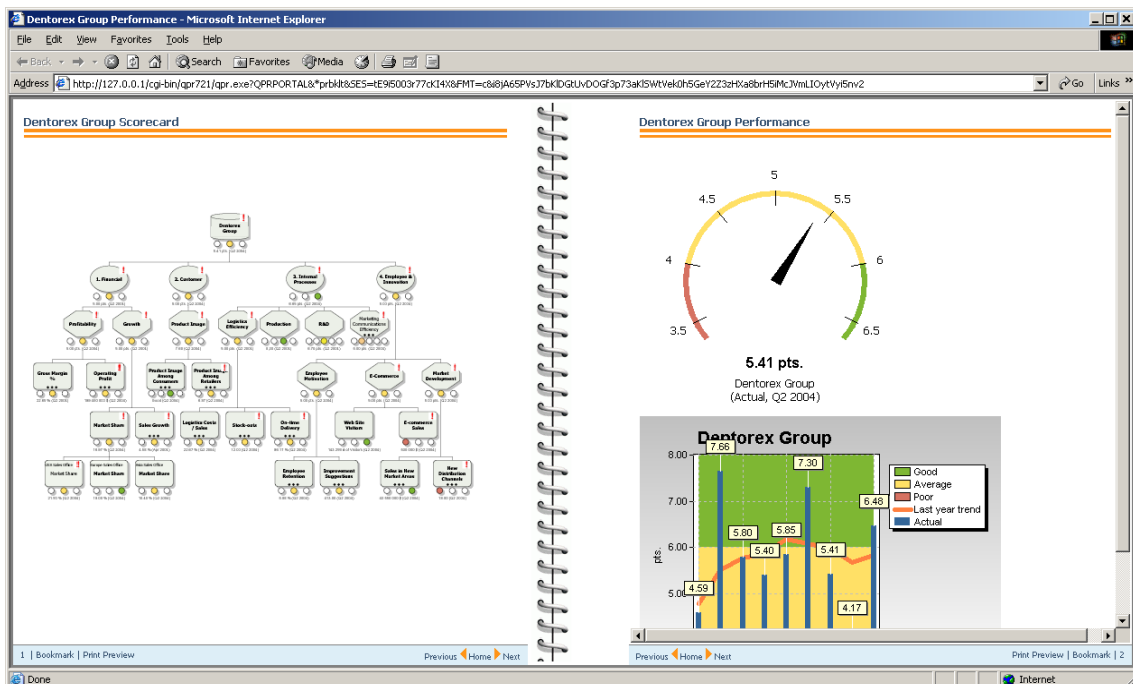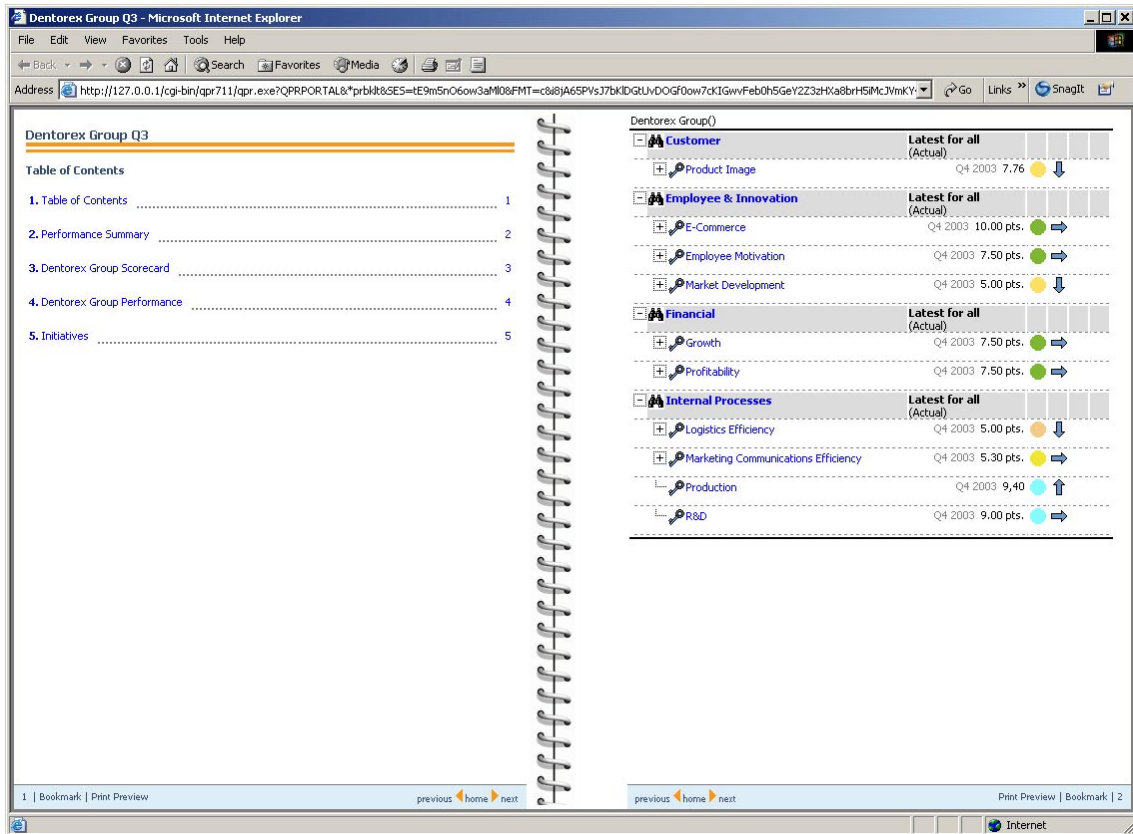
The briefing booklets are fully web-enabled. Users can create booklets on-line by picking up the relevant web views into a "shopping basket". The contents of the basket are laid out on a briefing booklet which can be distributed to selected users either via e-mail or web!

The QPR Collaboration portal is shipped with several booklet templates that enable you to create customized booklets that suit your needs.

3.3.5   Reports

One of the goals of a Balanced Scorecard project is often to reform the reporting culture of the organization. The objective of this reform is to move from a practice where every single piece of information is reported just in case the data is needed to more dynamic information sharing where everyone can access exactly the information they need.

QPR ScoreCard provides a vast amount of dynamical views into the information contained in the system. All views can be used as reports as such and distributed also on paper if needed. In addition to the ready made dynamical views of the data, you can also create customized reports by integrating your existing reporting system with QPR ScoreCard.

The open database structure of QPR ScoreCard enables you to use your favorite reporting tool to create customized reports of the Balanced Scorecard information and also combine data from other systems to the reports. All reports can be published through the QPR Collaboration Portal. This way the users can access all management information through the same easy-to-use interface.
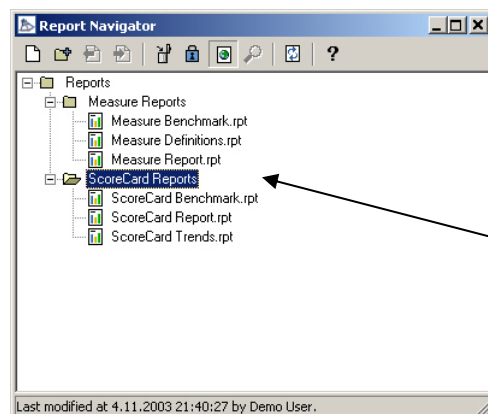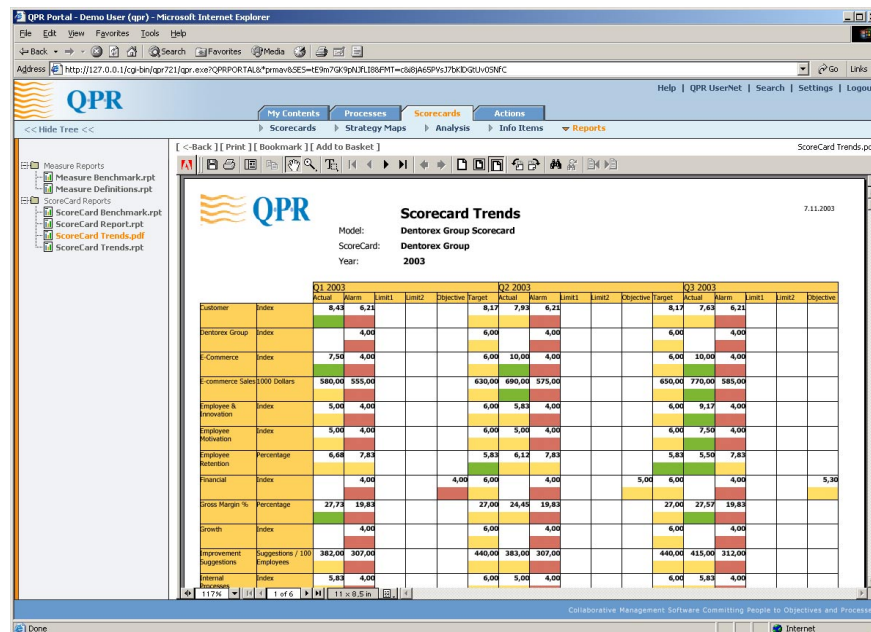
Publish any reports or files through QPR Portal. User rights can be set for each report or folder.

3.4   Execute Strategy

Studies have reported that the ability to execute strategy is more important than the quality of the strategy itself. It also seems that the strategy implementation is the most important factor shaping management and corporate valuations. The situation was not the same earlier when management theorists, consultants, and the business press have focused on how to devise strategies that will generate superior performance. Apparently, strategy formulation has never been more important.

3.4.1   Cascading Scorecards

One of the cornerstones of a successful Balanced Scorecard implementation is to cascade the scorecards through the whole organization. QPR ScoreCard supports creation of an unlimited amount of hierarchical scorecards and consolidation through the scorecard structure. This way the Balanced Scorecard can be cascaded from the organizational/ corporate level all the way to team or even down to individual level.

With the **ScoreCard Explorer** you can create an unlimited number of scorecards which are the containers for quantitative elements. The measurement information in each scorecard can be consolidated upwards – by enabling this, the changes in bottom level scorecards have a cause-effect relationship with the corporate level scorecards.
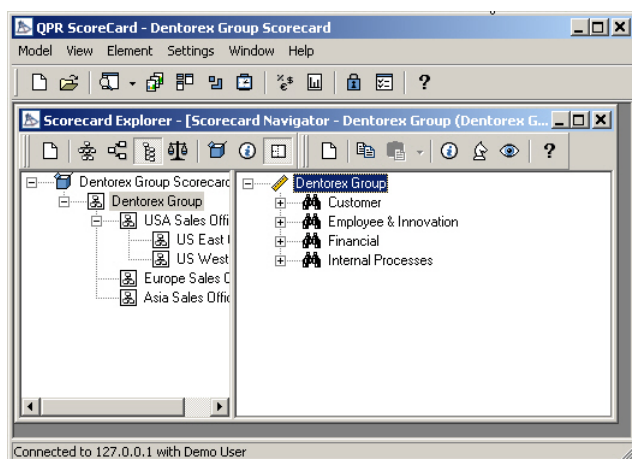
All measurable elements in each scorecard (i.e. key performance indicators, measures) are built in a hierarchical model. The hierarchy reflects the lowest level consolidation of measurement information and enables you to break down higher level performance indicators to more detailed indicators and key figures.

By using **reference elements** it is also possible to cross-reference measures through the scorecard system creating alternative structures of the measurement information.
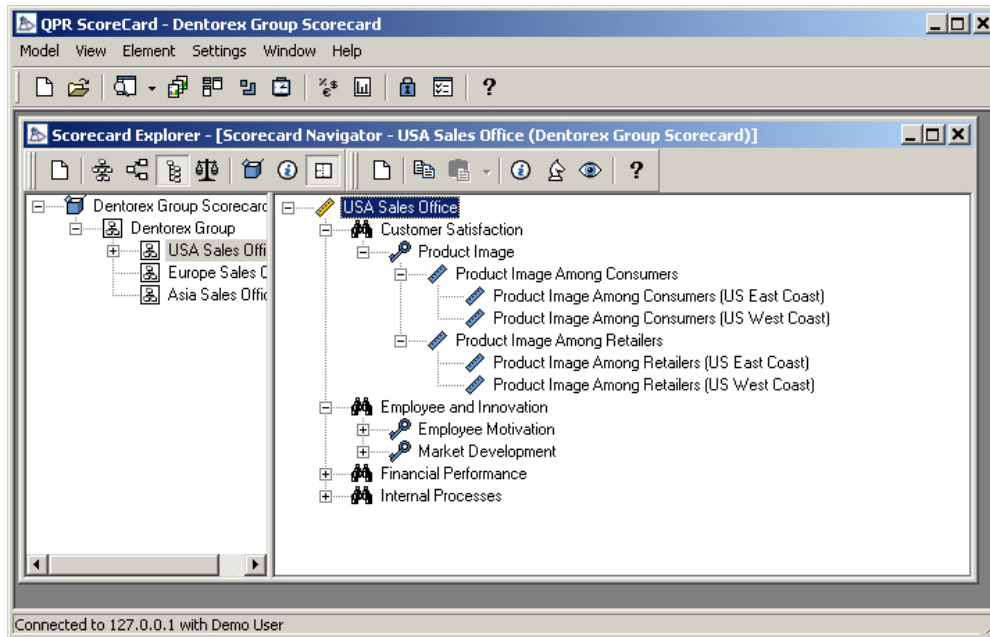
3.4.2 Personal Scorecards

Aligning personal objectives with organizational objectives by formulating personal scorecards is powerful way to create organizational success through personal success. QPR ScoreCard supports personal scorecards as well as linking them to incentive systems.

3.4.3 Warnings and E-mail Alerts

To ensure fast reaction to exceptional performance, QPR ScoreCard includes a flexible e-mail notification system. You can get an alert when a measure enters a certain range, or a notification about when to enter values manually.
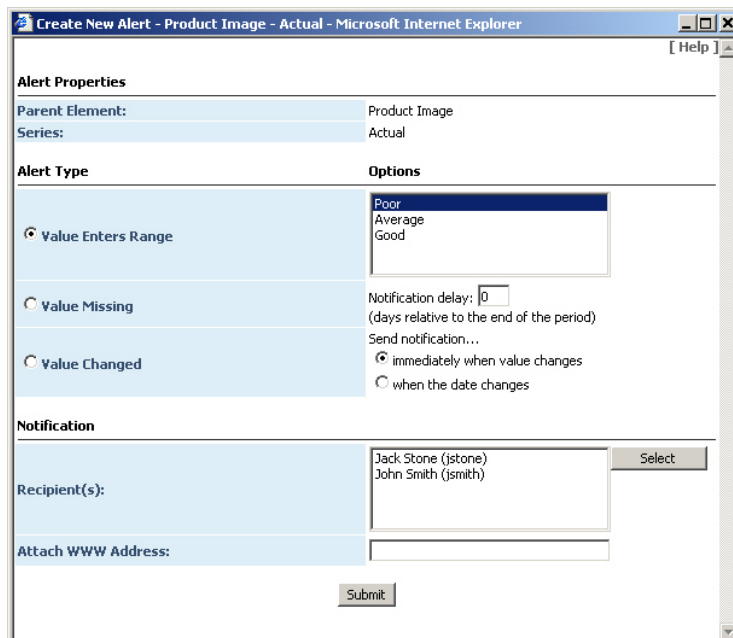
In addition to e-mail alerts, the graphical scorecard view also contains warnings, which visually alert the user of exceptional performance on a lower level of the scorecard.
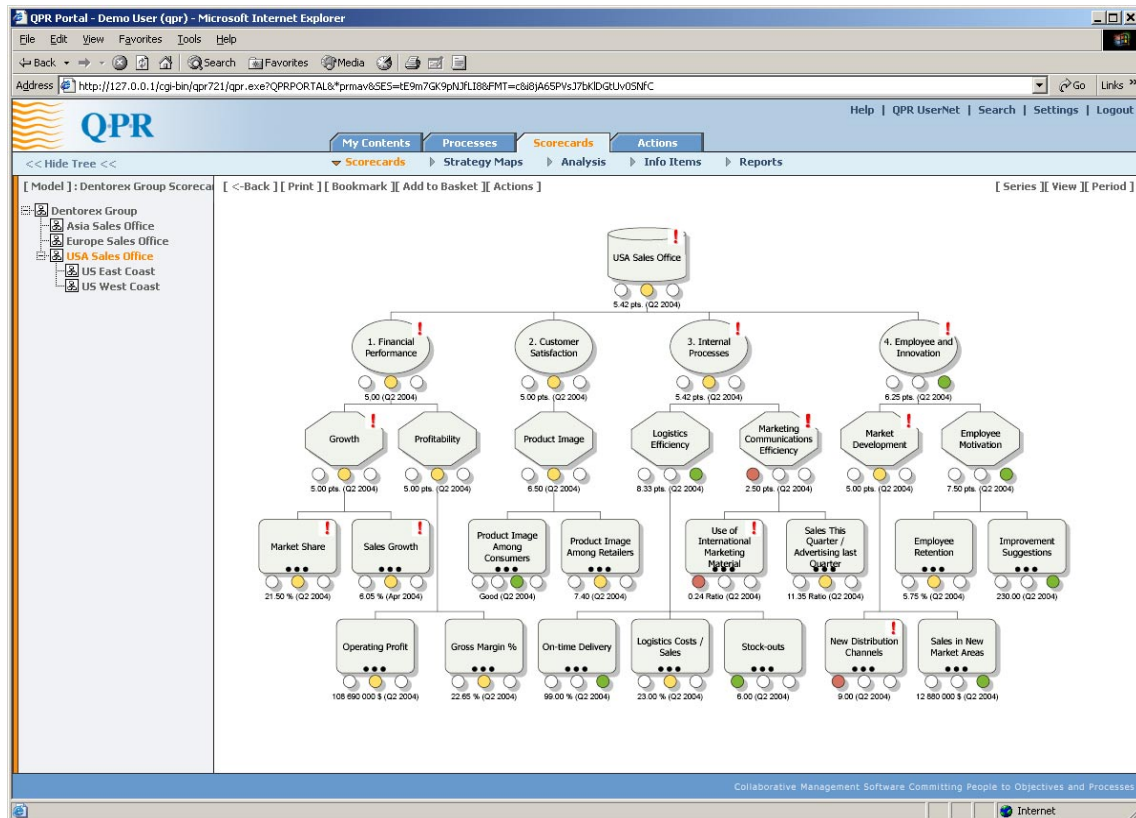
3.4.4   Risk Management

With the QPR Collaboration Portal, organizations can collaboratively identify and manage risks endangering the organizational goals or compromising the effective execution of business processes. The whole organization can participate in identifying, assessing, categorizing and mitigating risks thus making use of the collective knowledge gathered in the organization. Furthermore risk related responsibilities are explicitly specified and stored systematically together with all the related risk documentation.

Together with strict process management including processes for exception handling and clear risk metrics QPR forms a powerful solution for strategic risk management.

3.4.5   Best Practices and Document Sharing

The QPR Collaboration Portal enables users to effectively share knowledge throughout the organization. The users can share documents by linking or embedding them to the system allowing everyone in the organization to access the document.

Active use of comments creates a lot of valuable information about how the organization behaves and responds to different management decisions. This valuable information can be gathered and published as best practices using the Lessons functionality of QPR Collaboration Portal. The lessons can be published to everyone in the organization forming a strategic knowledgebase.

3.5   Integrate Performance Management to Your Organization

The QPR Collaborative Management Suite seamlessly integrates Your Strategic Performance Management or Balanced Scorecard to the resources and processes of your organization. QPR enables you to leverage your existing systems and build a company-wide performance management system. QPR ScoreCard can be integrated with various databases and IT systems such as Oracle® and Microsoft® SQL Server™, allowing you to automatically update performance data while providing you with the current status of your company's performance.

3.5.1   Integration with Existing Systems

QPR ScoreCard can be effectively integrated with existing systems. This means that QPR ScoreCard can be incorporated into an organization seamlessly and gradually. Furthermore, integration has the additional benefit of keeping historical data available for immediate use.

QPR ScoreCard supports data imports from files, excel sheets, SQL databases and OLAP databases. The QPR Application Programming Interface (API) can be used to integrate the system to almost any other third party solutions. The QPR API also provides standard modules enabling information exports and imports in e.g. XML formats.
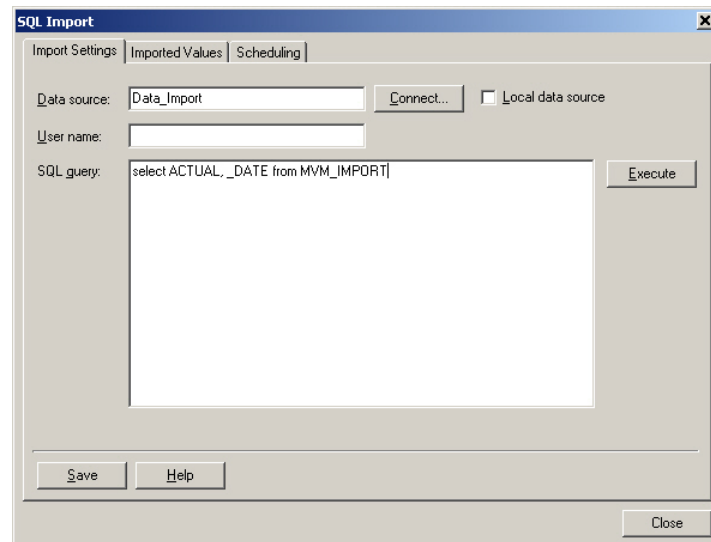
3.5.2   E-mail Integration

E-mail integration provides you with the possibility of sending e-mail directly to people responsible for their measures or actions. In addition, once you submit a comment or an action plan, you can notify the persons in charge instantly via e-mail to get their interest without them having to log into the system first.

3.5.3   User Interface Customization

By customizing the end-user interface to look exactly like your corporate intranet, you will easily achieve organizational buy-in for the balanced scorecard. In addition, if you wish to use some other portal solution, it is possible to get bits 'n' pieces from QPR ScoreCard web client individually.
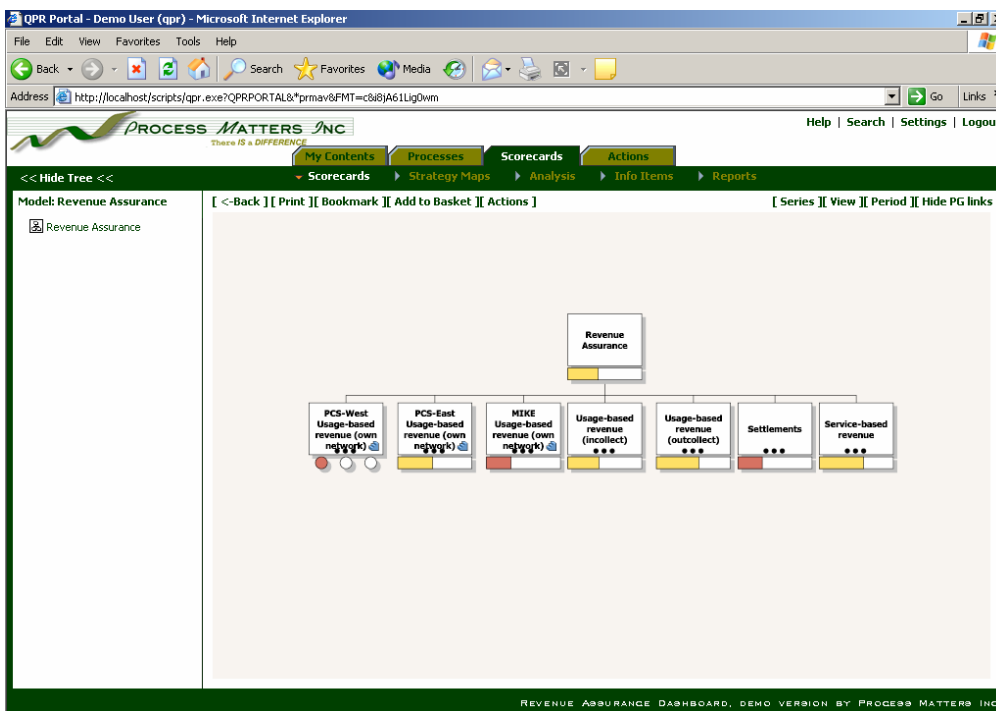
3.5.4   Design & Communication of Management Processes

The QPR Collaborative Management Software Suite also contains a leading process management software tool, QPR ProcessGuide. Together QPR ScoreCard and QPR ProcessGuide enable you to manage the performance as well as the processes of your company and seamlessly integrate the strategy execution to the everyday processes in your organization. You can drill down from your strategic key performance indicators to the process maps describing the operations and align the individual processes with the vision and strategy of the company.
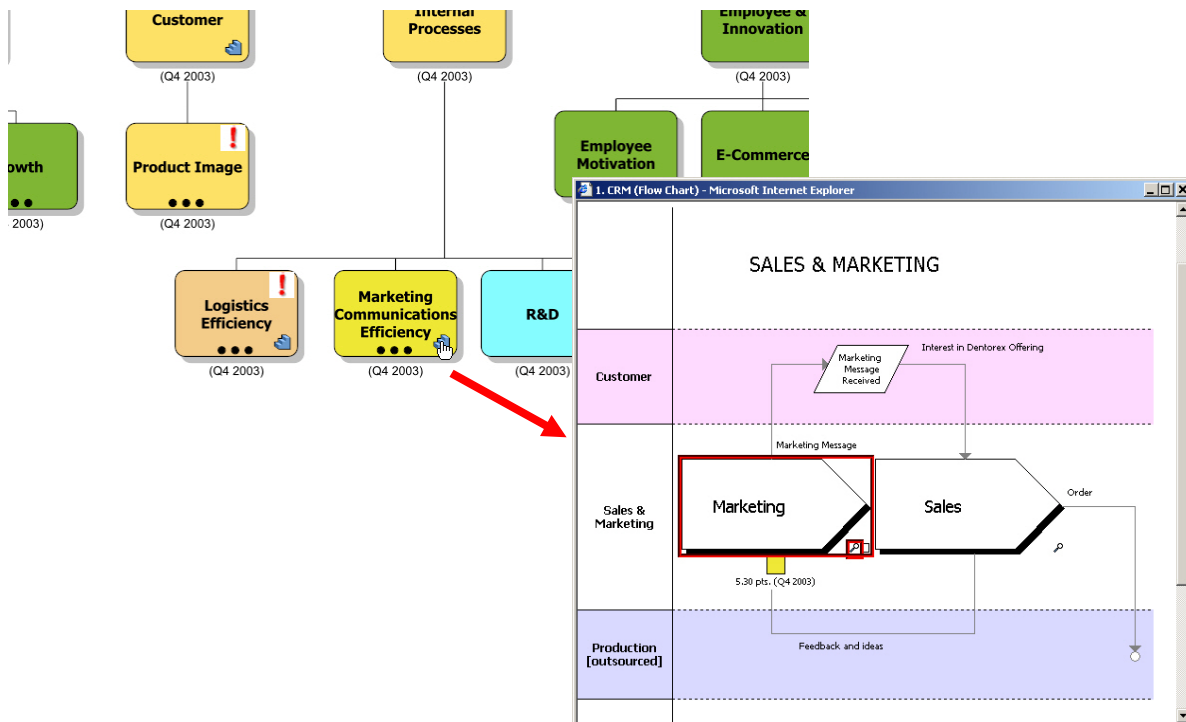
3.5.5   Links to Documents & Applications

Typically organizations have several operative systems that hold information relevant to strategic management. QPR ScoreCard lets you link documents created with other tools as well as other applications to the same web user interface.

3.5.6   Flexible User Management and Security

All the users in QPR ScoreCard can be integrated with your existing LDAP or NT Domain compliant user management. These systems include, for example, Windows 2000 Active Directory, Windows NT, Lotus Notes and OpenLDAP.

User rights in QPR ScoreCard can be defined per user and per group basis down to object level and with four main categories: none, view, update and full rights.
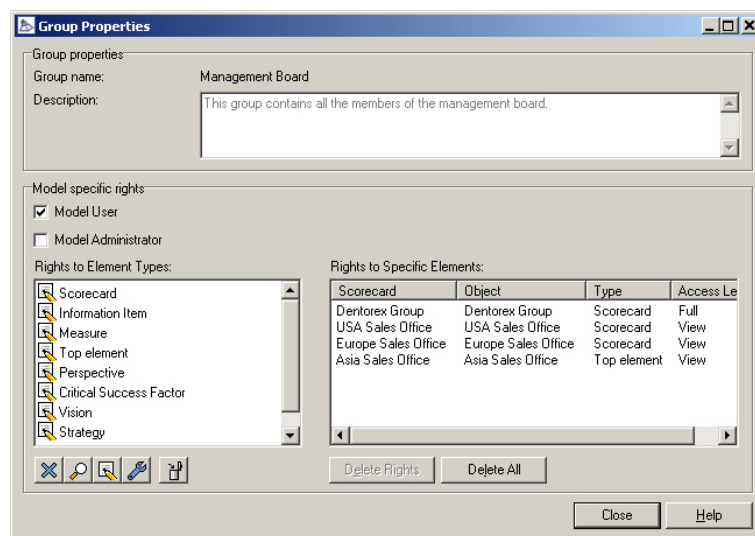
3.6   Get Results Fast

QPR ScoreCard is a very fast way to implement an automated collaborative management solution. The easy-to-use development interface lets you implement your scorecards as you define them. QPR ScoreCard enables you to start enjoying the benefits of your Balanced Scorecard system from the first day of use.

With minimal IT-administration required, there are virtually no running costs for keeping the system up and running. By implementing QPR ScoreCard you will have less meetings and less time spent in information gathering and delivery – and more time for analyzing and thinking.

3.6.1   Fast and Flexible BSC Modeling

The measurement framework in QPR ScoreCard is fully customizable to your needs. The foundation for the model is done with few key concepts on the meta-level. These concepts include element types (what to measure), value settings (how to measure) and period settings (when to measure) as well as measurements units and graph templates.
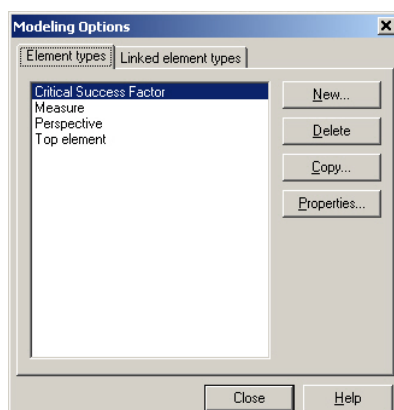
What to measure? The measurement framework of QPR ScoreCard consists of meta-elements like element types – in addition to standard element types like *Strategic Objective* that you find in the various model templates provided with the installation, you are able to define your own types. Characteristics of these types can be defined individually, for example types of icons in the end-user interface can be customized.

How to measure? The value settings concept defines how to transform the numeric data into color indicators. Also, with the value settings you can define what kind of series (like actual values, forecast and trend) you will be utilizing. With range definitions (in the image below, the color indicators) you can define what color or numeric value a measure gets once it has a certain value relative to target or alarm. In addition, ranges are powerful tools when consolidating and normalizing information from many different types of measures when used in calculation.
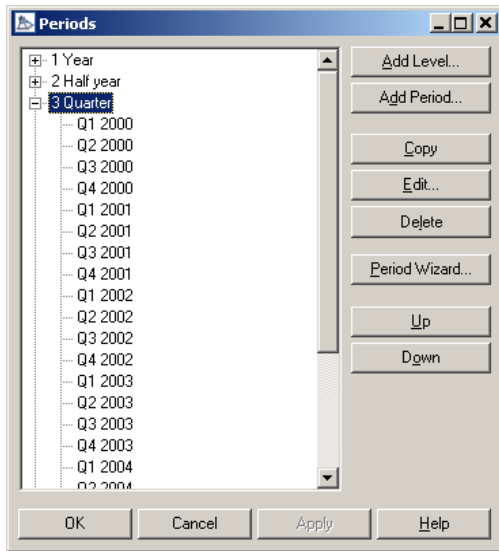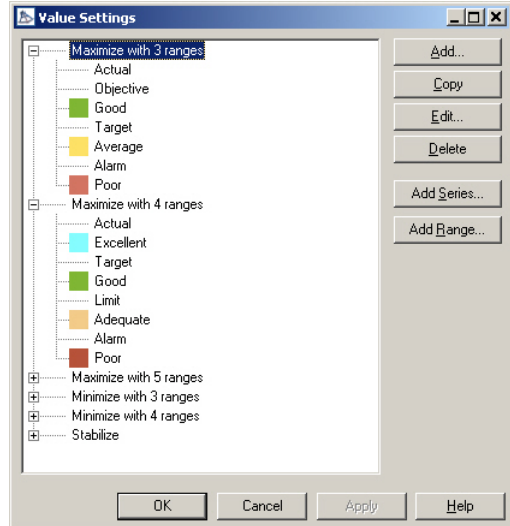
When to measure? The period system can be fully configured to your needs – from yearly measures down to daily measurement. All standard measurement frequencies such as year, quarter, month, week, day etc. are supported. In addition, custom period levels can be defined to exactly capture the desired measurement frequencies. Automatic periodic accumulation enables users to analyze the results of measurements in any specified period level.

3.6.2   Powerful Calculation Engine

The built-in calculation engine of QPR ScoreCard gives you the freedom to set up various types of consolidations between the measures and an ability to create different types of statistical series for single measures based on the actual values.

In addition to the standard arithmetic operations, the calculation engine has over 40 built-in functions (including various types of mathematical and logical functions).
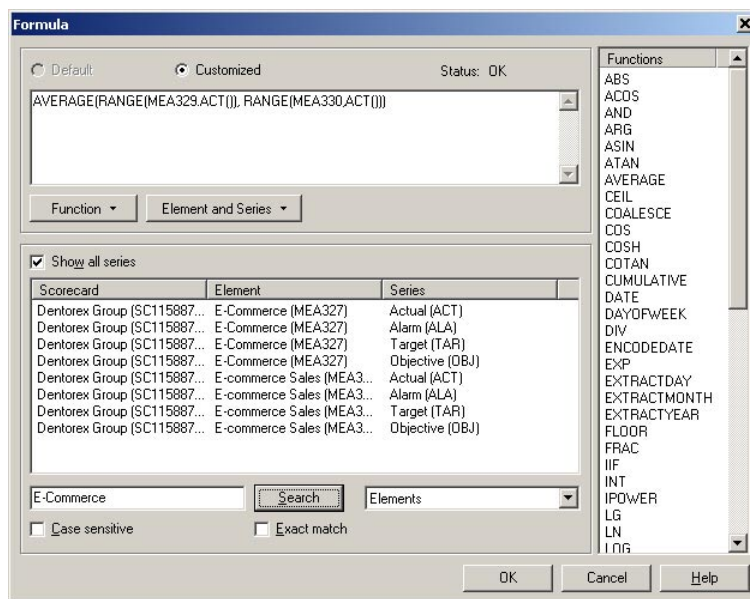
3.6.3 Deploying QPR ScoreCard

QPR ScoreCard provides two different ways for end-users to use the system.

An easy-to-use Windows application, **QPR ScoreCard Development Client** is used to build the performance measurement framework. In performance measurement framework, the modeling procedure does not require any additional IT-skills or excess consultancy. With the Development Client, doing this is an intuitive and easy task for anybody familiar with Windows applications.

The **QPR Collaboration Portal** allows users to utilize all the information of the Collaborative management system as well as add performance data, feedback and action plans. The QPR Collaboration Portal is the perfect tool for Balanced Scorecard owners, interest groups and stakeholders who want access to all the information but do not develop Scorecard structures.
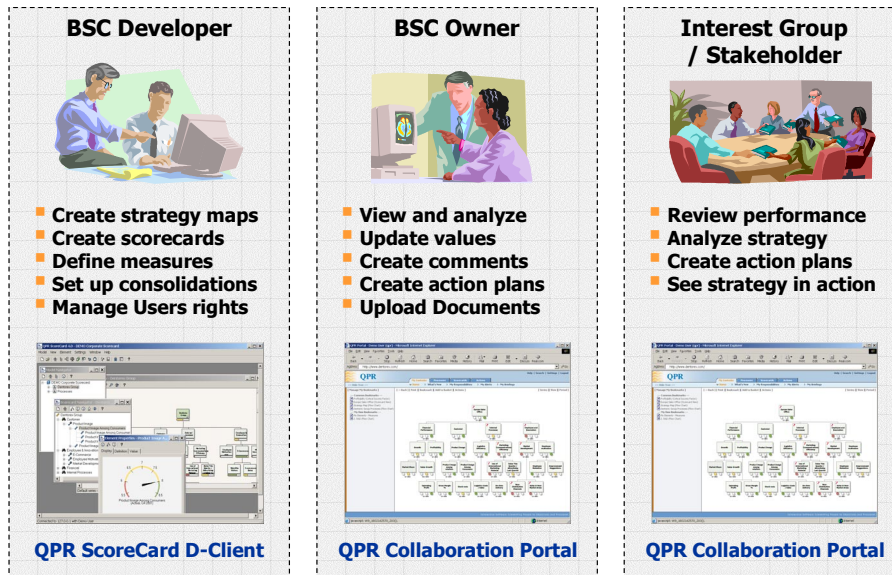

In a typical QPR ScoreCard installation more than 90% of the users use the web interface of the QPR Collaboration Portal. As a result of this QPR ScoreCard is very fast and easy to deploy even to a large number of users.

3.6.4 Scalability

A single QPR ScoreCard system supports up to thousands of end users depending on the hardware configuration.

In large organizations, however, it is sometimes feasible to distribute the balanced scorecard perhaps to different continents. Sometimes it is good to have different server sites that serve only certain geographical region.

QPR ScoreCard system supports this distribution of server sites by having replication capabilities among different servers. This gives you true scalability from standalone system to global solution for performance measurement and management.
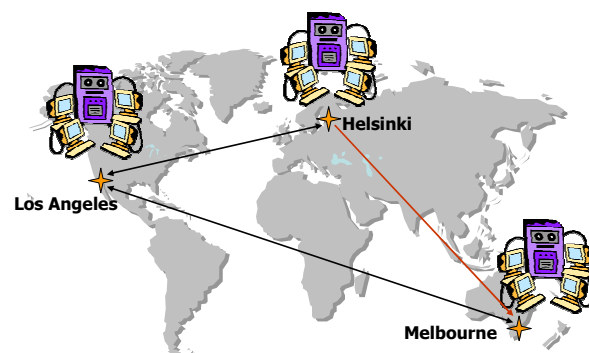
3.6.5 QPR Application Programming Interface (API)

The QPR API is an Application Programming Interface that can be used along with QPR Scripting to automate operations and to integrate QPR ScoreCard with third party applications. The core of the QPR

API is the Application Object Model, which provides a standard Microsoft COM programming interface for QPR Products. The Object Model is designed to:

- Provide a standard way to programmatically build and update QPR models

- Establish a core set of application programming interfaces that could be used to meet the most common needs for automated model maintenance and application integration

The QPR API implements the Windows COM (Component Object Model) OLE Automation Server interface. QPR Automation Objects can be utilized in all applications and environments (e.g. Visual Basic for Applications in Microsoft Office) that can access COM components. As a result a developer can create VB Script based QPR Scripts in the same manner as macros in popular office applications.

Ready-made example scripts for e.g. importing and exporting scorecard information in XML format are provided with the software, facilitating interoperability between QPR ScoreCard and Your other business solutions.

3.6.6   Online Resource Center QPR UserNet

The QPR UserNet is the Online Resource Center containing all Documentation related to QPR Software products as well as useful information for troubleshooting and implementation issues. The QPR UserNet contains dedicated information for Executives, Consultants and IT administrators helping them use QPR ScoreCard to their benefit.
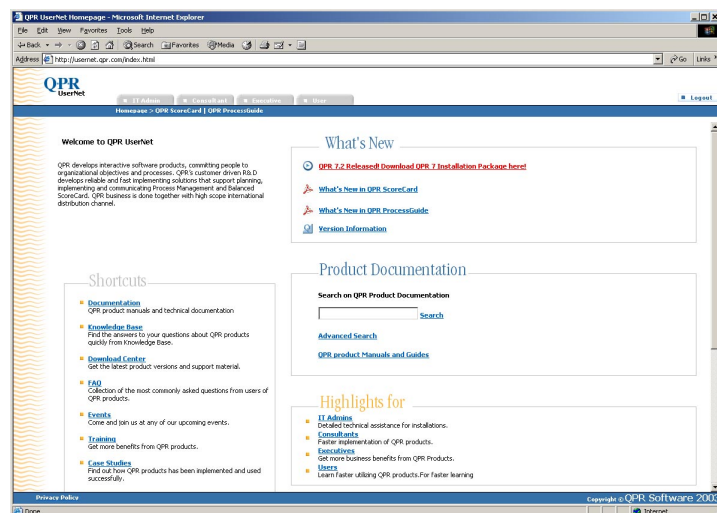

Appendix A: Technical Information

System Architecture

QPR ScoreCard's unique architecture leverages the power of the Internet and intranet, creating a world of new opportunities in both internal and external communications. The distributed, multi-user system allows all authorized users within the organization to view the entire Balanced Scorecard model, discuss the measures and strategy as well as input performance data through a browser, such as Netscape Navigator® and Microsoft® Internet Explorer. Information security is ensured by individual user rights and passwords.
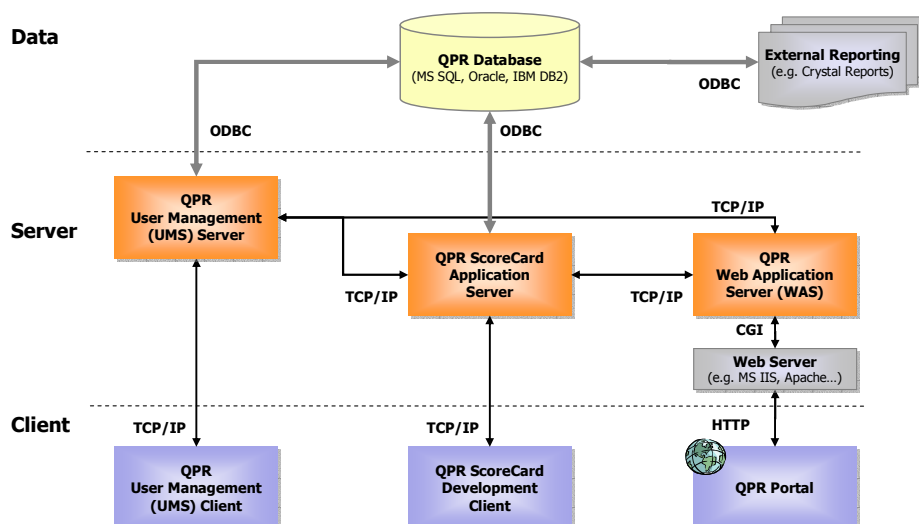
QPR ScoreCard's advanced multi-tier architecture ensures a globally shared, fast and reliable operating environment.

The system components – server, clients and database - can all exist in distributed locations. This architecture enables various workstation users to view and modify data simultaneously. Changes made to the data are updated on each user's desktop in real-time.

System Requirements and recommendations

The QPR Collaborative Management Software system relies on proven industry standard technology and platforms. The open architecture enables organizations to leverage on their existing infrastructure and minimize the need for new platforms and new system administration routines.

The QPR Collaboration Server components can be run on top of all major Microsoft Windows server enabled operating systems running on Intel platform.

The QPR Development Clients can be used in all major Microsoft Windows operating systems running on Intel platform. Using the development client requires an at least 56kbps connection to the server.

Supported operating systems:

- Windows 2003
- Windows XP
- Windows 2000
- Windows NT + SP 6
- Windows 98 / 98 SE / ME (Web Clients Only)
- Mac OS 9 or later (Web Client Only)

The Web Clients can be used with Internet Explorer, Netscape, and Mozilla on any major operating systems.

Supported Web browsers:

- Microsoft IE 5.0.1 - 6.0 (excl. Mac OS)
- Netscape Communicator 7.0 - 7.1 (Windows, Linux and Mac OS)
- Mozilla 1.0 - 1.4 (Windows, Linux and Mac OS)

Due to the choice of architecture, QPR ScoreCard requires a database system. To enable utilization of existing IT infrastructure, various industry standard databases are supported.

Supported Databases:

- IBM DB2 7.2

- MS Access 2000

- MSDE 2000

- MS SQL Server 7.0 / 2000

- Oracle 8i / 9i

    (MDAC 2.7 or 2.8 required)

In a web-enabled solution the web requests are processed by a web server. QPR supports the use of any CGI-binary compliant web server software run on any operating system. The CGI-binary is provided as a Windows executable or alternatively as a Perl script (e.g. Microsoft IIS, Apache, Lotus Domino)

Examples of supported Web Servers:

- Apache 1.3.x

- Lotus Domino Server 6.5

- Microsoft Internet Information Services (IIS) 4.0 - 6.0

Recommended Hardware Configurations

Due to the nature of multi-tier software, exact hardware requirements for all configurations cannot be given as the systems can vary much and the same servers can be shared with many different applications. However, if a dedicated server is used for QPR ScoreCard, i.e. all components, including database system and web server are on the same server, following guidelines can be given.

QPR ScoreCard System Hardware Requirements:

- Windows NT / 2000 / XP / 2003 with 1 GB of memory, 2 GB of disk space,
    1-2 processors with at least 1 GHz clock speed

QPR Collaboration Portal Browser Client Hardware Requirements:

- Windows / Linux / Mac operating system with at least 128 Mb of memory and a 500 MHz
    processor. At least a 56 kbps network connection to the QPR Collaboration Server

When selecting the hardware configuration, it is good to keep in mind that performance management implementations often grow in terms of model size and user amount. For this reason, a server that allows sophisticated capabilities for expansion is always a good choice.

More specific hardware recommendations can be found in QPR ScoreCard Administrator's Guide. [5]

Integration with Other Systems

With SQL import, QPR ScoreCard can be integrated with any ODBC-compliant data source. Any Microsoft OLE DB for OLAP compliant data sources can be used for OLAP import. The QPR Application Programming Interface (API) can also be used to integrate third party systems using e.g. XML.

User management can be integrated with most of the NT Domain or LDAP-compliant systems, including NT authentication, Microsoft Active Directory, Lotus Notes and OpenLDAP.

Appendix B: References

[1]   Robert S. Kaplan, David P. Norton: The Strategy Focused Organization.
        Harvard Business School Press, 2001.

[2]   International Survey Research: Engaged Employees Drive the Bottom Line
        http://www.isrsurveys.com/

[3]   F. Buytendijk, N. Rayner: Starter's Guide to CPM Methodologies
        Gartner Group, 2002

[4]   Michael Hammer: Beyond reengineering: how the process-centered organization is changing our
        work and our lives, HarperCollins Inc.,1996.

[5]   QPR ScoreCard Administrator's Guide

This document is included in installation CD and also available at http://www.qpr.com