

**PROJECT PLANNING AND DEVELOPMENT**

***MODULE NINE (9) ASSIGNMENT***



**NAME:** FRANCISPAULGALERIO

**COURSE:** POST GRADUATE DIPLOMA IN PUBLIC HEALTH

**REG NO: AIPMS/216/002/2019**

**ASSIGNMENT:** NINE

*AFRICA INSTITUTE FOR PROJECT MANAGEMENT STUDIES*

DECEMBER 31, 2019

**Introduction**

Involving geographical and the communities in decision making on public health project their own needs and assets is an important component of the overall planning and implementation process, enabling policy-makers and service providers to better understand local communities, to be more responsive to their concerns and to respect and harness their capacity. Hancock & Minkler *identify* two broad motivations for such assessment - to stimulate, monitor and assess the impact of change and to contribute to a community empowerment process.

**Why is it important to involve the community when making decisions on public health projects?**

***Increasing democracy*.** Community participation in decision-making, planning and action is a human right. An increasing number of citizens are disillusioned with government and want to see more participatory approaches to democracy. It is increasingly being argued that new styles and structures of governance are needed that transcend people being viewed as passive recipients of services provided by agencies and decided by elected representatives and enable genuine participation, empowerment and citizenship *(63,64)*.

***Combating exclusion*.** Community development and community organizing often works with specific groups of the population, especially those that are marginalized and disadvantaged. The changing contexts within and between European countries (such as the increase in asylum seekers) can pose special cultural and political challenges and require that workers be equipped with relevant skills, knowledge and attitudes. By giving these communities a voice, community participation can play an important role in combating social exclusion within society.

***Empowering people*.** Community participation can be both an outcome of empowerment and an effective empowerment strategy. The actual process of participation can inherently empower individuals and communities to understand their own situations and to gain increased control over the factors affecting their lives. This can, in turn, enhance people's sense of wellbeing and quality of life, as highlighted in HEALTH21.

***Ensuring the ownership and sustainability of programmes*.** Community participation is essential if interventions and programmes aimed at promoting health, wellbeing, quality of life and environmental protection are to be widely owned and sustainable. However, such sustainability requires that the community participation process itself be sustainable, with fundamental prerequisites being in place.

***Mobilizing resources and energy*.** Communities have a wealth of untapped resources and energy that can be harnessed and mobilized through community participation, using a range of practical techniques that can engage people and, where appropriate, train and employ them in community development work. There is a clear tension here between mobilizing resources in a way that empowers communities and mobilizing to reduce the cost of providing services. This problem is explored further in Chapter 4 in the section on dilemmas and pitfalls.

***Developing holistic and integrated approaches*.** Ordinary people do not tend to compartmentalize their thinking in the way that many professionals have been trained to do. They can thus make a valuable contribution to the formulation of holistic and integrated cross-cutting approaches that can meaningfully address the complex issues being faced by towns and cities throughout Europe - so long as professionals are prepared to work with them on the issues they define as important, whether or not labels such as "health" and "sustainable development" are used.

**Explain the project planning process putting in perspective a public Health objective**

**Situation Analysis and Problem Identification**

**Situation analysis.** This step involves assessment of the current situation from various perspectives to establish the actual health situation in terms of needs and priorities. Generally, situation analysis may answer the key question ‘where are we now?’ (Identification of needs and problems), and leads to the next key question where do we want to go’? (Setting priorities and targets). Refer to the planning cycle

**Review of previous plan(s).** A critical analysis of the previous plan (or plans) is an essential early step in the planning process:

Has government policy over the period changed and what is its impact on the plan?

Review the previous plan to see whether there are any changes in such information as population, health delivery, community participation and other social, economic and cultural factors.

Recognize change in resource availability, e.g. human labour, money and materials and their allocation at the national and community levels.

Analyse management support as a requirement for the new demands.

**Review the performance of the previous plan.**

**Review and interpretation of policy documents.** It is essential to review the existing policy guidelines in order to familiarize yourself with the existing directives and regulations to be followed in the course of preparing a district health plan. The purpose of review is to ensure that national policy guidelines are being adhered to and that community decisions are being interpreted and translated into appropriate actions.

**Steps to be followed:**

Review national health policy guidelines that govern the development and implementation of the plan in terms of health packages to be provided, means of implementing these packages and what problems and constraints, rules and regulations have to be followed.

Review resources available for implementing the plan in terms of human and financial resources, equipment, infrastructure and supportive services in the district.

Review health sector reform, human resources for health development policy, PHC strategy, guidelines for the preparation of the rolling plan and forward budget and programme guidelines.

Find out about the additional resources required within the community that may be incorporated.

Determine both constraints and advantages that may be inherent in the overall socio-cultural environment in which the plan is being developed.

**Problem identification.** During problem identification consideration should be given to health and health-related problems based on available data from: HMIS, community surveys, census, reports and your own experience. (Refer to the district health profile). Health problems can either be primary or secondary.

**Primary problems.** These include illnesses identified in the community such as malaria, tuberculosis, AIDS, and leprosy, as well as existing inequity, unfairness and client dissatisfaction.

**Secondary problems (also called contributory problems).** These can be inadequate health resources, inefficient health delivery services or poor management skills, which cause or contribute to the primary problems.

**Problem Analysis and Prioritization**

**Problem analysis (problem and needs tree)**. It is important for the DHMT to analyse identified problems in the context of prevailing conditions in their respective districts, using both problem and needs trees.

**Problem analysis** is the art of critical examination of problems against prevailing conditions of your respective districts. The analysis is done by constructing a problem tree.

A **problem tree** is a set of assumptions on causes associated with the problem and its consequences

**Problem prioritisation.** In planning, one has to make choices among needs so that scarce resources can be used efficiently. As a district, one practical approach is to rank the problems in order of importance. When doing this exercise, it should be remembered to take into consideration the national priorities as reflected in the nation- al health policy guidelines. (For instance, HIV/AIDS and malaria control and polio eradication).

Once the major problems have been identified, their causes should be analysed by asking and finding out why they exist. This is sometimes obvious, but in some cases, it is necessary to carry out wide consultation or even research.

Prioritization is making decisions on how limited resources could be best allocated to priority health problems or needs. It uses a combination of different approaches and criteria.

**Setting Objectives and Targets.** This stage in the planning cycle involves the determination of the goal, objectives and targets. This stage answers the key question ‘where do we want to go’? Or ‘what do we want to achieve? It is expected that the district health management teams will now have a clear picture of the district health situation (from the situational analysis), from which the priorities and objectives will be derived.

An objective is the intended result of a successful activity or programme within given inputs and process. Objectives will be formulated to address the identified priority problems and their immediate causes. Objectives should be specific, measurable (or at least observable), attainable (given resources, environment and management capacity), realistic and time-bound **(SMART).**

**Objectives tree.** Converting the problems of a problem tree into positive statements facilitates the development of objectives. For instance, if one of the problems in a problem tree is stated as:

“Delayed referral of obstetric emergencies”, an objective could read:

“To have, within the next planning period, the number of delayed referrals of obstetric emergencies reduced by 40%” (it will be necessary to define clearly what to consider a delay and what to consider an obstetric emergency).

**Types of objectives.** Objectives can be stated in terms of what can be achieved within a relatively short period of time, that is short-term objectives which ultimately lead to the achievement of long-term objectives.

***Examples of short-term objectives:*** To advise and refer to antenatal care 70% of pregnant women in 10 villages in one year.

To train TBAs in 10 villages in one year.

**Setting targets.** After setting objectives, you have to determine the number and quality of specific activities that have to be carried out before objectives can be realized, that is setting the targets.

Setting targets helps to determine whether the set objectives are realistic. If planned targets are higher than the potential numbers of services that can be delivered, given available or potential resources and under prevailing constraints, objectives should be modified to allow consistency between planned serv- ice targets and potential performance level.

**Formulating (developing) Interventions.** Developing interventions is the process of identifying, short-listing and deciding between alternative approaches and measures to address identified and prioritized health problems and needs. At this stage the key question to be addressed is “how will we get there?”

Formulation of interventions is carried out in conjunction with the next stage in the planning circle, which is determining resource requirements and subsequently preparing the plan of action. Interventions are alternative measures to address priority health needs.

The following steps are needed in developing interventions:

Identifying and short-listing gaps and weaknesses in existing service components by looking into:

appropriate service inputs such as service delivery infrastructure, resources and support systems;

management and organization focusing on resource control, activity monitoring, quality control, health service distribution, community involvement and participation

Identifying additional components and activities that are required to bring about the desired changes in the existing service components.

Identifying potential constraints and limitations to planned interventions.

Modifying proposed interventions in line with geographical, political, climatic and socio-cultural conditions, including existing infrastructure, management and organization. Consider the following criteria for modifying the interventions:

any intervention or option which has very strong political support, should be included;

any intervention that has a binding constraint that would make it unfeasible should be dropped;

Addressing constraints by using community resources, modifying job responsibilities and tasks, shifting available resources from one activity to another and obtaining additional resources;

Improving management and administration in line with identified interventions.

**Determining Resource Requirements.** Determining resource requirements involves translation of interventions and all activities required to support the interventions into resources such as human labour, materials, money, space, time and information.

**How to determine resource needs.** Establish a resource inventory table. The table should specify existing resources, additional resources required and total resources needed. To do this, list all programme activities, and the type and quantities of resources required by each programme activity.

**The interventions will include:**

training;

immunization;

health education;

supervision.

**The required inputs are:**

personnel;

physical infrastructure;

equipment and materials;

drugs and supplies;

**Preparing the Plan of Action.** A plan of action is usually prepared in a matrix format and will normally contain the following items: the problem, objective(s)/interventions, activities, inputs, key responsible actor/implementer, important assumptions and risks, activity monitoring indicator, planned output, activity cost and implementation time frame.

**Preparing the Budget.** Budgeting is a process of costing inputs and activities into monetary terms.

**Description of budget.** Budgeting is made of estimated costs of inputs and activities that will be required to implement the plan.

**There are two kinds of costs:** recurrent costs and capital costs.

**Recurrent costs** refer to the costs which you are incurring annually to keep the system running, e.g. salaries, drugs, kerosene and any other consumables.

**Capital/developmental costs** refers to costs that are incurred on a fixed asset. An asset with a life span of more than one year, e.g. x-rays, machines, thermos, and weighing scales, has two types of costs, namely: initial costs (purchasing price) and recurrent costs (amortization or depreciation).

Amortization costs are useful for planning since they tell us when the capital inputs are going to be replaced. This can be accommodated in the long-term budget if the budget duration is more than one year, e.g. the three-year rolling plan and forward budget.

**Costing of activity inputs.** Costs of inputs have to be estimated before and thereafter transferred to the budget. This process is referred to as cost analysis.

**Types of budgeting**

*Line item budgeting*

*Programme budgeting*

*Performance budgeting*

**Implementation.** Once the planning and budgeting has been accomplished and approved by the appropriate authority, the success of the plans will depend on how well they have been implemented. There are three aspects that should be kept in mind while implementing the plan of action. These are:

**Effectiveness.** When an activity is implemented, the result is called the output. For example, if you carry out a study, the result is a study report. The study report therefore would be an output from this activity. Efficiency refers to what extent the particular activity outputs have been achieved as compared to the targets set. In order to achieve the objectives, set in the plan of action, all activities should be fully implemented, reaching the set targets and covering all the activity components.

**Efficiency.** Implementation of any activity involves utilization of resources. This could be human resources, financial resources, time, and other material and logistical resources. As described earlier, implementation of an activity results in an output. Efficiency relates the output to the resource inputs and refers to the measure of output per unit resource input.

**Monitoring.** Monitoring is a systematic and continuous assessment of the progress of an activity over time. Monitoring can be done through the process of collecting, coordinating, processing, measuring and communicating information to assist management in decision-making.

Monitoring encompasses follow up of **Inputs** (vaccines, funds, personnel, etc.), the **Process** (activities/tasks being done according to accepted norms and standards), **Outputs** (products meet specifications, services are delivered as planned, training results in new skills, etc.) and finally the

**Outcome** (the short-term effect of the programme or campaign).

Monitoring ensures that:

work progresses according to schedule; standards such as storage and administration of vaccines are maintained; resources are used rationally and as planned; the required information is available and used, etc.; problems are detected during implementation period so as to undertake corrective measures; and plans are verified to ascertain that they are being implemented in the way and manner planned.

**Tools for monitoring**

These are:

Health Management Information System and periodical reports.

Supervision reports.

Programme progress reports.

Project plan of action.

**Evaluation**. is the systematic assessment of actions in order to improve planning or implementation of cur- rent and future activities. Evaluation includes areas of context, input, process and impact to assess whether the set objectives have been achieved. It can be internal, that is carried out by the implementers, or external.

**Why evaluation?**

The essence of evaluation is to determine programme performance, effectiveness and efficiency. In other words, an evaluation can be carried out to:

Decide whether an activity was worth doing.

Determine whether the objectives set were achieved.

Determine (formative evaluation) whether activities should be continued or not.

Determine whether the project should be extended elsewhere, etc.

**When to evaluate**

Before implementation:

to assess development needs and potentials;

to determine feasibility of the plan.

During implementation (formative evaluation):

to identify areas for changes or modifications;

to detect deficiencies and ensure immediate redesign of intervention strategies.

At the end of programme (summative evaluation):

to assess programme or project effect and outcomes with a view to obtaining information on:

effectiveness of the programme in achieving its stated objectives;

its contribution to developmental goals;

efficiency of the programme or project in utilization of resources;

sustainability of the project results; and

whether to continue, modify or terminate the project.

Comprehensive evaluation addresses **context, inputs, process,** and **outcome.** However, comprehensive evaluation may be too demanding in terms of resources and, hence, is extremely expensive.

Before carrying out an evaluation, proper plans must be made to include correct logistics and methodologies to be followed in advance.

**Indicators.** Indicators are variables with which we can measure changes either directly or indirectly. For example, if the objective is to train a number of health personnel annually, a direct indicator is the number of personnel trained in a year.

**What are some of the challenges that you face as an individual in implementation of public health projects?**

The busyness of an individual or a project manager’s day-to-day business in implementation of projects means problems are often brushed aside with the hope that they will just disappear – which they rarely do.

Be proactive instead. Address any issues and create a successful project team. Here I list some of the most common challenges or problems that I and my project teams face. By confronting these – and therefore improving project outcomes – you can boost your own career, while working better together benefits everyone on the team.

**Poorly Defining the Goals and Objectives.** Poorly defined goals or goals without objectives pushes a project in danger. An important step in a project is to define goals and objectives and that becomes a major challenge.

The project managers and team members might not be knowing what exactly to expect from the project. If the goals and objectives are not clearly defined, the project is doomed to fail. When no one is aware of the what’s, whys and when’s of the project, what will follow is a lot of confusion and chaos.

Starting a project without [**clear objectives**](https://www.proofhub.com/articles/smart-goal-setting-examples-for-project-managers), a specific direction and a [**prepared plan**](https://www.proofhub.com/articles/how-to-plan-a-project); it’s like going on a road trip with no idea where you’re going and how to get there. You will waste gas, time and effort. Likewise, your business suffers when there is no clarity and forethought before starting a project.

***Solution****:* Setting a goal is inclined towards developing a proposal and then defining objectives that would help to achieve the goal. When you know your goals, you can define the objectives that is the how, why, and what you need to do for project planning. This is why it’s recommended to hold a kick off meeting and use [project planning software](https://www.proofhub.com/how-it-works/project-planning-software) to define clear goals.

**Insufficient Team Skills.** A team is as good as its team members. If team members are not smart or are not trained enough to perform assigned tasks, it can put the development in a risky spot. But most of the times, the team members are assigned on their availability, not for their expertise for many projects. If team members are not skilled or trained enough to meet the challenges and perform [assigned tasks,](https://www.proofhub.com/articles/what-is-work-management) it can put the development of the project in a risky spot.

Some projects are challenging or demand a certain level of knowledge and expertise, so it is up to project managers to decide whether team members need to be trained or to add someone with the required skills. Besides this, qualities like the lack of accountability, blaming each other, and finger-pointing can also halt a project.

***Solution****:* Document the core set of skills needed to accomplish the workload and analyze the strengths and weaknesses of the team members. If required, train them to enhance their knowledge and end the skill gaps.

**Miscommunication Cause Conflicts.** How many times have you heard of communication issues as an excuse or explanation to unfinished tasks, projects don’t meet deadlines, conflicts or not working together? Miscommunication, poor communication,  is one of the biggest project management challenges that get in the way to [deliver projects successfully](https://www.proofhub.com/articles/how-to-plan-a-project).

Communication skills are the project manager’s greatest asset. No matter if you are giving instructions, asking questions or seeking information, there’s always a challenge to provide clear and open communication.

There’s a reason why project managers emphasize a lot on effective communication. Because, most often, successful communication translates into successful projects as 57 percent of projects fail due to breakdown in communications.

***Solution****:* Determine proper communication flows for project members and develop a way to inform what information needs to be informed to project members. You can also use [collaboration software](https://www.proofhub.com/articles/best-collaboration-software-2018) such as Proof Hub to ensure that project members are in the loop of the recent developments in the project.

**Lack of Accountability.** Everyone wants accountability but a few teams have it. I’m sure we are well aware of the challenge. A project manager has to make sure that the team is accountable throughout their daily workloads. Accountability is visible in the form of blame game when things go wrong but is rarely in the picture when the things are right.

***Solution:***To embrace accountability, make sure you begin it at the start of a project to build it into your workflow. The good news is that effective [project management skills](https://www.proofhub.com/articles/project-management-skills) can be developed through project management training and skill development.

**Lack of trust**. Trust is crucial to teamwork, and it starts with people knowing each other. Team members absolutely need to be acquainted, both professionally and personally, particularly in projects where tensions will run high at some point. Otherwise members won’t understand each other, they won’t want to engage because they haven’t made that human connection and they won’t fully trust each other.

**Conflict and tension**. Conflict or a difference of opinion can be healthy and, if carefully managed, can trigger useful debates. It can make people think differently, expanding knowledge and insight; innovation can happen and results flourish. Different opinions are not a bad thing. It’s how we handle the conflict that makes a difference.

**Not sharing information**. Knowledge is not power – unless it’s shared. Project team members all bring a unique set of skills, knowledge, experience and wisdom to the table. Effective project teams fearlessly share regularly and generously for the benefit of everyone and for the benefit of the project’s success. This makes the capability of the whole team grow and gives the team more power.

**Low engagement.** Team engagement is crucial to business success. If engaged, team members on a given project will be interested in what they do, committed to the project mission and willing to go the extra mile. They are there in body as well as mentally and emotionally. The key to engagement is involvement – by involving others you make it impossible to stay detached.

**Lack of transparency**. Without transparency, trust will suffer – both within the project team and with the end client. Transparency is becoming the presumed norm in project and programme management and expectations are growing. It starts at the top: the more senior you are, the more responsibility you have to be a role model for this. Employees will follow the leader’s behaviours, good or bad. When this is done well it can have a positive cascade effect throughout the organisation.

**No long-term thinking**. Project managers have to get beyond day-to-day urgencies, see the big picture and consider how all parts of the project fit together. For a project team, this means being able to think beyond your own area, about how you fit into the wider change programme or project and how you impact the end client’s experience. This is about business sustainability and long-term success. Everyone is busy, but just being busy is not enough. Long-term project success requires long-term thinking.

**Badly perceived, not delivering**. A project team has a brand, an image and a reputation created by the actions and behaviours of the team members. A large part of the perception is driven by how well the team delivers on expectations and promises made. As a project team, you need to make sure that everyone understands and takes responsibility for their roles in creating the perception of the team. This includes both what is delivered on the project and how it is delivered.

**Poor change management**. Change is constant and unless carefully managed, it can be detrimental to teamwork and results. Change starts and ends with communication. Whenever you think you’ve communicated enough, you need to communicate some more – and it needs to be interactive: listen, talk and involve. Be aware of the change curve, or the four predictable stages of change: denial/resistance, emotional, hopeful, commitment. Each stage is needed, but how long someone stays at each stage can be managed and kept to a minimum.

**Working in silos**. Silo working is a reality for many project teams. Team members may sit side by side but not really work together. A great project team can be like the three musketeers – all for one and one for all. So, if you are in a team, you may as well really be in it. Working together in earnest is about making the most of the fact that you are a team. Honour your time and efforts by seeing yourself as a full-time member of the team, not just an individual contributor. Imagine how great it would feel to be part of a team where everyone is thinking of the team and not just themselves – make that project a success by working together.

**Not going in the same direction**. To walk in the same direction, a team needs to know where it is going or what it is contributing to (vision) and why (purpose). Spend time on this with your team. This clarity provides a framework and ‘reason to be’ that can rally any given project team to work together. Keep in mind that visions need to be compelling and purposes meaningful. People respond to the importance of both.

If you want to create a great project team, pay particular attention to behaviours. How we behave has an impact on others and affects how they behave. It’s when we change our behaviours that we can achieve transformational change.

**One of the challenges faced by many third world countries is underdeveloped Health infrastructures. Do you agree with the statement? Support your answer with scholarly evidence and practical examples.**

**Yes, I do,** because Many factors are responsible for the underdevelopment of health infrastructures in many of the third world countries. Most obviously, economic resources are often insufficient to support the provision of essential services. The main recommendation of the WHO Commission on Macroeconomics and Health is for a substantial scaling up of expenditures on health care. A second problem is that the available resources are not allocated to the most effective interventions, are geographically concentrated in large cities, and do not reach the poor. Despite the WHO *Alma Ata Declaration*, the bulk of public health expenditure continues to be absorbed by hospital-based care delivered at some distance from poor rural populations. Shifting the balance of resources further toward primary care would not necessarily have the desired impact on the level and distribution of population health, however. There are major deficiencies in the quality of primary care delivered in many developing countries.

Insufficient resources, inappropriate allocation, and inadequate quality are major impediments to the delivery of effective health care that reaches the poor. The access problem cannot be solved without tackling each of these deficiencies. Although the importance of these supply side issues is not underestimated, the primary focus of this paper is the low demand for health care, where it is available. Two sets of factors may suppress demand, those that limit ability to consume and those that lower willingness to consume. In the economist's parlance, constraints and preferences. Constraints are determined by the income of the household, the charges made for health care, and costs incurred to reach health services. Preferences are influenced by culture, knowledge of the potential benefits of health care, and the quality of the services available.

**Income**

The evidence reviewed in the section: *Access to Effective Health Care in Developing Countries: Evidence* shows a strong positive relationship between living standards and the utilization of health care. The relationship is not spurious. It holds after controlling for a multitude of other determinants of health care demand (see World Bank for a summary of evidence). For example, the probabilities that a woman receives prenatal care and receives a medically supervised delivery rise with income. Similarly, the positive association between income and child immunization holds in multivariate analyses.

In a market setting, a positive impact of income on consumption is expected. Prices are less of a barrier to use for those with greater purchasing power. It is a little more surprising to find the relationship emerging for public care. This is understandable once it is recognized that charges are normally made for public care in the developing world. In addition, with long distances to travel to reach health services, the non-price costs can be substantial. Monetary costs of care ensure that income is an important determinant of health care utilization and its dispersion.

The nature of health financing in the developing world, with heavy reliance on out-of-pocket payments, strengthens the relationship between health care utilization and income. Risk pooling and cross-subsidization, possible with pre-payments systems, break the dependency of health care utilization on current income. With out-of-pocket financing and limited access to credit, which is the norm in many poor countries, current household income is the binding constraint on health care use.

**Prices**

Financing health care through out-of-pocket payments makes prices an important determinant of demand. In relative terms, the payments can be substantial. For example, for the poorest fifth of the population in Vietnam, the cost of a hospital visit is 22% of per capita annual household income net of food expenditure. It would be surprising if such charges did not deter demand. The evidence confirms that they do. There is some difference in the estimated strength of the relationship. Most studies of developing countries find health care to be price inelastic; demand falls less than proportionately to price. A few obtain estimates of price elastic demand.

There is strong empirical support for the proposition that the poor are more price sensitive than the better off. Increases in user charges will raise the share of health care consumed by the better off, unless effective mechanisms are implemented to shield the poor from these charges. Unfortunately, the general experience with fee waivers, particularly in Africa, is not encouraging (see *Strategies to Raise Utilization of Effective Interventions*). User fees often effectively exclude the poor from essential services, while recovering only a fraction of costs. Abolition of user fees in Uganda was associated with increase in utilization by the poor but this was not true in South Africa, where fees for maternal and child health services where removed. The effect of price increases can be offset by quality improvements. There is evidence from Africa that if increased user charges are combined with reductions in travel time and improvements in quality, utilization can increase, even for the poor.

Informal payments are substantial in many public health care systems. They are often greater than formal charges and may exist when official charges do not. These payments are particularly prevalent in the former Soviet Union and Eastern Bloc. In Armenia in 1999, 91% of users were paying informally for public health care. In Azerbaijan and Poland, the figure was 78%. But it is not an isolated phenomenon. In one region of rural India, the poor are paying almost as much to visit a "free" public health center as for a consultation with a private doctor.

**Costs other than charges**

In addition to charges made by the health care providers, travel costs and foregone earnings are important costs of consuming health care in the developing world. In rural areas, the distances to health care facilities and the poor condition of roads mean that time, effort, and cost required to arrive at the point of delivery can be substantial. The evidence confirms the expected negative impact on health care utilization. Halving the distance to public health facilities in Ghana was estimated to almost double their utilization rate. The demand of the poor has been found to be more sensitive to travel time that of the better off in Cote d'Ivoire.

**Culture and gender issues**

Low demand for modern health interventions often derives from deep-rooted attitudes that reflect culture and social norms. One example are continued preferences for traditional over modern therapies. The fact that use of traditional therapies generally declines with income and education suggests that social norms are not inviolable. Adherence to norms is influenced by the socioeconomic environment.

Gender attitudes and roles are particularly important determinants of health seeking behavior. Raising access to maternal, reproductive, and child health interventions is a major challenge within societies that restrict the public lives of women. Again, the social is not completely divorced from the economic. There is evidence from Indonesia that the utilization of prenatal care increases with the control a woman exercises over household finances. Causality is a moot point. In Africa, women make more use of public health care than men in the highest income group but the gender bias is the opposite in the lowest income groups.

**Knowledge and education**

Recognition of illness and the potential benefits of treatment are prerequisites for health care demand. Where a large proportion of the population is in poor health, this becomes the norm and illness is not easily recognized. If treatment coverage is low, there is less opportunity to learn of its benefit. The unfortunate outcome can be the continued toleration of illness and disease.

In India, 2 in 5 children are not fully immunized, despite the fact that immunization, at least in principle, is free. Almost a third of mothers said that they had not immunized their children because they were not aware of the benefits, and a further 30% claimed not to know where to go to get their child vaccinated. A detailed study of a North Indian village demonstrates the importance of poor knowledge in diminishing demand for effective interventions. Households are typically passive users of vaccines, accepting them when presented with them at doorstep but with little or no active demand. There is very poor knowledge of the link between vaccine and disease and the pace of learning of the relationship is slow. To raise utilization, it is important for the community to develop trust in the provider. Given the link between immunization and health is not immediately observable, trust can be developed through observation of the effectiveness of other services provided. The poor quality of many of the services provided impedes the development of trust.

**Demand responses to poor quality**

Poor quality of health services is a major problem in many, but not all, developing countries. Facilities open and close irregularly; absenteeism rates of doctors and nurses can be very high; staff can be hostile, even violent to patients; misdiagnosis is not uncommon; medicines are all too often unavailable, sometimes due to staff pilfering for use in private practice; and there is inappropriate prescribing and treatment. Deficiencies in quality have direct implications for access to *effective* health care. Further, one expects that demand will diminish in response to the poor quality of the care offered. The evidence confirms the hypothesis. A decline in quality of public health care in Ghana was associated with 40% fall in utilization within only five years (1979-1983)**What is entailed in the project cost estimate of any health project**

**Define Estimate’s Purpose:**Determine the purpose of the estimate, the level of detail which is required, who receives the estimate and the overall scope of the estimate.

**Develop Estimating Plan:** Assemble a cost-estimating team, and outline their approach. [Develop a timeline](https://www.projectmanager.com/software/use-cases/project-timeline-software), and determine who will do the independent cost estimate. Finally, create the team’s schedule.

**Define Characteristics:**Create a baseline description of the purpose, system and performance characteristics. This includes any technology implications, system configurations, schedules, strategies and relations to existing systems. Don’t forget support, security, risk items, testing and production, deployment and maintenance, and any similar legacy systems.

**Determine Estimating Approach:** Define a [work breakdown structure (WBS)](https://www.projectmanager.com/training/what-is-a-work-breakdown-structure), and choose an estimating method that is best suited for each element in the WBS. Cross-check for cost and schedule drivers; then create a checklist.

**Identify Rule and Assumptions:** Clearly define what is included and excluded from the estimate, and identify specific assumptions.

**Obtain Data:**Create a data collection plan, and analyze data to find cost drivers.

**Develop Point Estimate:** Develop a cost model by estimating each WBS element.

**Conduct Sensitivity Analysis:** Test sensitivity of costs to changes in estimating input values and key assumptions, and determine key cost drivers.

**Conduct Risk and Uncertainty Analysis:**Determine the cost, schedule and technical risks inherent with each item on the WBS and how to manage them.

**Document the Estimate:** Have documentation for each step in the process to keep everyone on the same page with the cost estimate.

**Present Estimate to Management:** Brief decision-makers on cost estimates to get approval.

**Update Estimate:** Any changes must be updated and reported on. Also, perform a post-mortem where you can document lessons learned.

**Quality.** Project cost estimates should be prepared by individuals with knowledge, skill and experience in estimating transportation infrastructure projects using industry recognized, repeatable, and defendable practices. Cost estimators should:

* apply expert judgment to the estimate and the assumptions made in developing it
* incorporate appropriate quality control processes into the estimating process
* appropriately consider and quantify the risks and uncertainties of the project
* present the estimate in an easily understood format
* be able to defend the estimate and the basis for the decisions and assumptions therein, if asked

**Integrity**. Project cost estimates should be prepared using a high standard of professional and ethical integrity. They should not be prepared by anyone who may be, or may be perceived to be, in conflict of interest. Developing the estimate through an open and transparent process, and presenting it in a manner that is easily understood, helps to maintain the public’s and other stakeholder’s trust, support and confidence in MOTI projects.

**Interdisciplinary Experts.** Project cost estimates are ideally developed in consultation with skilled, interdisciplinary experts, and not in isolation. Working with such expertise is particularly important when the project scope is least defined. Where possible project cost estimates should be prepared using a team approach, employing expertise from appropriate disciplines for the major project components (e.g. engineers for design parameters; property acquisition experts for property costs and related risks; construction personnel for constructability and scheduling; and environmental experts to determine potential impacts and mitigation). Interdisciplinary experts should also review the project scope, objectives and risks to ensure the project is well defined and understood. Where practical, a field review should be conducted with the team of experts, prior to the preparation of the estimate. Consultation with outside agencies may also be appropriate, particularly for work that is unique or unusual (eg buildings, railroads, marine).

**Basis of a Project Cost Estimate.** Project cost estimates should be based on the best, most complete information available on the project as at the time the estimate is being prepared. A clear and concise scope statement identifying specifically what is included, and what, if anything, is not included in the scope of work for the project is perhaps the most important ingredient for preparing a cost estimate. Project cost estimates should always reflect the entire scope of work for the project. All of the elements and activities necessary to complete the project (e.g. engineering, property acquisition, construction) must be considered, along with a cost allocation for each which respects the quality and accuracy of the data available, the geographic location of the project, the complexity of the work, and the prices prevailing at the time the estimate is prepared. The uncertainties and risks associated with the work must be carefully considered to establish appropriate contingency. Cost estimators must make assumptions in developing any estimate, particularly during the early stages of a project when much less information is known. All such assumptions should be documented clearly and comprehensively enough to readily establish the basis on which the estimate is built. Cost estimators should identify the ‘Estimate Level’ on each cost estimate so there is a clear understanding of the amount of project development upon which the cost estimate is based.

**Contingency**. Project cost estimates should always include contingency to cover certain uncertainties and risks. Contingency is generally understood to be an amount of money added to an estimate to cover items of cost which are not known exactly at the time the estimate is developed, but which will likely occur during the life of the project. It is intended only for the scope as defined in the estimate, it is not intended to cover scope changes. Contingency is an item in a cost estimate like any other. It is best presented as a separate line to clearly identify it. Ideally the amount should be derived through a risk analysis of the items of work within the project using the expert judgment of the experienced estimator and project team members, rather than simply including a pre-determined percentage of the base estimate. Contingency should be estimated and included in every estimate and every budget. It is a very real cost to the project. It is not “padding” and it should reasonably be expected to be consumed as the project evolves. Establishing the amount of contingency is part of the estimating process. It evolves with the level of project understanding.

**Continual Documentation throughout Project Life Cycle.** Project cost estimates should be prepared at strategic points throughout the project lifecycle, ideally at each project phase consistent with the Estimate Levels. each estimate should reflect prevailing pricing for the entire scope of work based on the knowledge and information available, and an appropriate assessment of the risks at the time each estimate is prepared. Scope changes should be clearly and completely documented on the estimate and should consider the risks to the project which may flow from the scope change itself. Each cost estimate should be presented in a consistent, repeatable format to ensure that they clearly demonstrate how the newer estimate evolved from the previous, less-detailed estimate. The desired result being a seamless progression of estimates each comparable to the previous.

**Review of Estimates**. Project cost estimates should undergo periodic reviews by a competent, independent third party to validate the cost estimates. This is particularly important for larger projects where the estimates are very complex and often subject to significant scrutiny. Each estimate is based on the individual evaluation, views, and interpretation of a particular estimator. A second independent set of eyes reviewing the estimate will afford project managers and decision makers an opportunity to capture a different perspective (a second opinion), and provide assurances as to the quality of the estimate. These reviews are also important to ensure that any changes to the conditions and underlying assumptions for the original estimate are appropriately reflected in subsequent estimates. For smaller, less complex projects, this review could be conducted by independent MOTI personnel experienced in project construction and delivery or perhaps other members of the project design firm who were not involved in the original estimate. For larger, more complex projects, such reviews shall be carried out by contracted independent qualified third-party estimators. MOTI has retained several qualified cost estimators on ‘as and when required’ consulting services contracts for such estimate review purposes.

**Release of Estimating Information**. Careful consideration must be given to the context surrounding the release and potential use of the information provided in project cost estimates. While estimates may have been developed for a specific and unique purpose, they may be subject to misuse by those who do not understand the applicable context, and by those parties who could derive some personal benefit from acquiring such information (e.g. potential bidders). Project cost estimates should not be released to the public until they have been thoroughly reviewed and found to be an accurate reflection of the project scope and associated project risks. In particular pre-tender Ministry cost estimates prepared for construction contract tendering and bidder evaluation (the “Schedule of Approximate Quantities and Unit Prices”), shall remain confidential, and shall not be released to anyone who could be perceived to derive some benefit from acquiring such information. Project cost estimates should always be accompanied by documentation of the assumptions made in the development of the estimate to ensure that the context in which the estimate was developed is clearly understood. Estimates without such documentation, could lead to incorrect assumptions by those viewing the estimate.

**Challenges of Cost Estimation.** There are many factors that are uncertain when cost estimating. For example, if the project is not like prior ones, then experience won’t help guide you. If the planning horizon is further out, the greater the uncertainty. That said, the longer the project’s duration, the less in focus cost estimations will be.

Then there is the team: the level of skill and experience available are going to have a big factor on overall costs of the project.

**Project Cost Estimation Techniques.** All of these factors impact project cost estimation, making it difficult to come up with precise estimates. Luckily, there are techniques that can help with developing a more accurate cost estimation.

**Analogous Estimating.** Seek the help of experts who have experience in similar projects, or use your own historical data. If you have access to relevant historical data, try analogous estimating, which can show precedents that help define what your future costs will be in the early stages of the project.

**Statistical Modelling.** There is statistical modelling, or parametric estimating, which also uses historical data of key cost drivers and then calculates what those costs would be if the duration or another aspect of the project is changed.

**Bottom-Up Estimating.** A more granular approach is bottom-up estimating, which uses estimates of individual tasks and then adds those up to determine the overall cost of the project.

**Three-point Estimate.** Another approach is the three-point estimate, which comes up with three scenarios: most likely, optimistic and pessimistic ranges. These are then put into an equation to develop an estimation.

**Reserve Analysis.** Reserve analysis determines how much contingency reserve must be allocated. This approach tries to wrangle uncertainty.

**Cost of Quality.** Cost of quality uses money spent during the project to avoid failures and money applied after the project to address failures. This can help fine-tune your overall project cost estimation. And comparing bids from vendors can also help figure out costs.

**Dynamic Tools.** Whenever you’re estimating costs, it helps to use an online software to collect all of your project information. [Project management software](https://www.projectmanager.com/) that can be used in congress with many of these techniques to help facilitate the process. Use online software to define your project teams, tasks and goals. Even manage your vendors and track costs as the project unfolds. We’ll show you how.

**Techniques used to estimate project cost.** To estimate project cost formally there are few methods (techniques) used as follows:

**Analogous Estimating**. This estimating technique is based on expert judgments and information based on similar previous projects. Where previously done similar project, cost is considered with plus or minus of 20% for existing project.

**Parametric estimating**. Past data or record is used to estimate cost for the current project.

**Bottom-up estimating**. Once you have defined the scope of the project, it is the most reliable form of technique. In this technique, based on WBS, you estimate the cost for each resource or deliverables.

Likewise, there are other methods (techniques) which could be useful for estimating cost like PERT estimating, vendor bid analysis, etc.

**REFERENCES**

Gwatkin DR, Devishwar-Bahl G. Immunization coverage inequalities: an overview of socioeconomic and gender differentials in developing countries. Washington DC: World Bank; 2001.

Filmer D. The incidence of public expenditures on health and education. Background note for the World Development Report 2004: making services work for the poor. Washington DC: World Bank; 2003.

World Health Organization. World health report 2000. Geneva: World Health Organization; 2000.

Lavy V, Germain J-M. Quality and cost in health care choice in developing countries. Washington DC: World Bank; 1994. (Lsms Working Paper, 105). Lavy V, Germain J-M. Quality and cost in health care choice in developing countries. Washington DC: World Bank; 1994. (Lsms Working Paper, 105).

De Bethune X, Alfani S, Lahaye JP. The influence of abrupt price increases on health service utilization: evidence from Zaire. Health Policy Plan 1989; 4:76-81.

Ministry of Health, author. National Health Accounts. Kampala: Government of Uganda; 2004. Financing health services in Uganda 1998/1999–2000/2001.

25. Palmer N, Mueller DH, Gilson L, Mills A, Haines A. Health financing to promote access in low income settings — how much do we know. Lancet. 2004; 364:1365–1370.