HNP DISCUSSION PAPER

An Idiot's Guide to Prioritization in the Health Sector

Abdo S. Yazbeck

March 2002

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* The "Idiot" in the title refers to the author and not the reader

Health, Nutrition and Population (HNP) Discussion Paper

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Health, Nutrition and Population (HNP) Discussion Paper

An Idiot's Guide to Prioritization in the Health Sector

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Abstract: Every year, Ministries of Health the world over develop annual budgets for the health sector. Every year, donors, academicians, advocacy groups, medical trade unions and professional organizations, and health service managers and providers complain that the budgets have the wrong priorities. While all these groups are united in their unhappiness with the priorities reflected in these budgets, they disagree on what the priorities should be and on how the prioritization process should be conducted. A review of the published literature reveals a lack of consensus in the policy and academic communities on how best to prioritize health sector budgets. What is more surprising is that the literature review reveals little documentation on how countries actually do prioritize health expenditures. This paper attempts to address both gaps in information about prioritization. The first part of the paper describes what goes into a prioritization exercise. This typically includes advocates, prioritization criteria, and methodologies for making choices. The first part also describes the analytical tools available to understand who gains and who loses from decisions taken in developing a budget for the health sector. The second part of the paper (Annex 1) documents an actual prioritization exercise undertaken in Bangladesh between the years 1996 and 1999. As the title of this paper indicates, this is not a theoretical or academic paper. It is simply meant to empower potential practitioners by introducing them to the players involved in the process, the techniques utilized by these players, the political realities that drive the process, and some evaluation techniques.

Keywords: Prioritization, Health Sector

Disclaimer : The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.

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I. THERE IS NEVER ENOUGH

The Shiroishi family had a good year financially. With the Japanese economy picking up, both parents are earning more money than they had over the last few years and their investments in stocks have stabilized after the East Asian crisis. They sit in the living room of their Tokyo apartment to discuss the prospects for the coming year. The mother, and financial planner in the family, calculates their combined income and from that deducts their obligations like rent, car payments, schools, utilities, and other living expenses. What she is left with, and what economists call disposable income, is a bundle of cash that the family can save or spend as they wish. Since this is the first time in many years that the family has not been concerned about spending habits, the demands on the disposable income totaled three times more than what was available.

The father, fast approaching 45 years of age, has had his eye on the latest model Mazda Miata. He has had to drive the family's second car for eight years now and it has become a money pit constantly needing repair. His status among his colleagues at work, and therefore his future income stream, is somehow linked to the type of car he drives.

The mother has a different plan in mind for the disposable income. With an eye on the rising costs of education in Japan and two young kids eventually needing financial help to go to college, she is concerned that the family equity stake has suffered from the Asia financial crises and needs re-investment. She has identified two high-performing stock funds and feels that by investing the disposable income now, the financial security of the family will be reestablished.

The kids have something completely different in mind. You see there is a new entertainment complex called Joy-o-polis that all the cool kids are going to every day. Their life would be "sooo much better if they could get season passes". The passes are a "great deal too" because with one you do not have to pay for any of the rides and all the food is heavily subsidized so they can save lots of money.

Clearly the Shiroishi family has a prioritization problem. They cannot afford all three packages and there will have to be compromises, winners and losers. The final decision will depend on a number of factors, including:

1. The value the family puts on long-term returns versus short-term satisfaction;

2. Coalition building skills of the different family members; and

3. The different color options available for the Mazda Miata.

A prioritization exercise in developing government budgets for the health sector in any country shares some important elements with the experience of the Shiroishi family budget exercise. Both activities are driven by the same problem, which also happens to be the main drive behind microeconomic theory. Namely**,** that we have **limited resources and unlimited wants**.

Other similarities include:

1. A highly political process in which the final result depends primarily on the relative position of power of the various advocates.

2. The process will most probably produce clear winners and losers due to the difficulties in developing win-win solutions (there is simply not enough money). A standard result will have to be some form of rationing.
3. The failure to reach a final consensus leads to a situation where those controlling the resources make the final decisions.

So how should policy makers, facing a resource constraint, make decisions about what to finance? As this paper will show, there are no simple or purely technical answers. Moreover, the different disciplines and interests involved in the health sector bring into prioritization sometimes contradictory objectives, tools, and decision criteria. The next section explores the disciplines and advocates that are typically involved in a prioritization exercise for health services. A list of prioritization criteria is described in section III followed by the different approaches to prioritization. Section IV describes ways to identify the winners and losers of prioritization exercises. A brief summary of the experience of Bangladesh in prioritizing a package of essential health and population services illustrates the concepts highlighted in this paper and the difficulties with technical solutions is provided in the attached annex 1. Annex 2 briefly describe the different tools used in measuring *wants* and resources and some the difficulties with defining and measuring *costs*.

II. ME, ME, ME, ME

The budgetary quandary of the Shiroishi family was driven by three distinct advocacy groups represented by the father, the mother, and the kids. Each advocacy group had an objective and, if they acted like a typical family, a strategy supported by sometimes dubious and always highly selective facts. Is this typical of a prioritization exercise for a package of health services? Maybe not the dubious facts, but all prioritization exercises have sets of topic-specific advocates who have clear objectives and strategically use selected facts to advance their objectives. In a typical country, the list of advocates, and their objectives and tools, may include:

ECONOMISTS (also known as bean counters and practitioners of the dismal science)

> Objective: In pursuit of prioritization, economists are driven by a singular obsession with clearly defining the role of the state versus the roles of markets and the private sector. They will on occasion agree to include equity as an objective but their primary interest is efficiency and optimal production and utilization of goods and services.
>
> Tools: The best tool available to economists in a prioritization exercise is that nobody understands them. They employ three phrases to constantly baffle other advocates and spend a considerable amount of everybody's time trying to explain them. They are: (i) "public goods"; (ii) "externalities"; and (iii) "risk-pooling". To economists, government intervention should always be justified explicitly, government financing should be highly selective, and government provision should be the last resort.

EPIDEMIOLOGISTS/PUBLIC HEALTH SPECIALISTS (also known as doom and gloom)

> Objectives: In pursuit of prioritization, epidemiologists focus entirely on their own definitions of "science" and "evidence" using sweeping assumptions that even an economist would be uncomfortable generalizing from. Their objective is to target resources on the main sources of disease burden (who cares what the clients want!). Public financing for targeted interventions is usually their answer.

Tools: Every presentation by an epidemiologist starts with a chart showing an ever increasing measure of human suffering. "Scientific" tools used by epidemiologists include sophisticated measures of the burden of disease[1] and universal measures of cost-effectiveness of a variety of interventions. They are proud of the fact that they can use an economic evaluation tool such as cost-effectiveness to beat the economists over the head.

POLITICIANS/ADMINISTRATORS (also known as the clients or ribbon-cutters)

Objectives: In pursuit of prioritization, implementers are driven by a strong sense of political reality. Cognizant of the fact that change (perceived or real) is associated with political as well as technical risks and can be seen as a confirmation of their past failures, they will do their best to maintain the current system. They are allergic to the term "Reform" (the R word). They do not see private sector providers as the friends that the economists think they are.

Tools: Who needs tools when the implementers are the owners of any intervention. But in case the ownership argument does not work, they claim to be the true voice of the real client, the population.

HEALTH SERVICES PROVIDERS (also known as trade unions or the front lines)

Objectives: Employment, employment, employment, and career development. Resource allocation exercises, such as prioritization, offer both opportunities and risks. They are no fans of "Reforms" because they know that it is simply a code word for firing people. Individually, the overwhelming majority of providers want to do good, but as group, union objectives and politics rule.

Tools: The most visible tool available to this group is the threat of walkouts or strikes. They know, however, that the population is not typically supportive of such actions. The most effective tool available to this group is their political connection to ruling and/or opposition parties.

EQUITY ADVOCATES (also know as the politically correct)

Objectives: To take every opportunity to address historical imbalances in health and family welfare outcomes and access for the poor and to seek gender balance to health outcomes and access. Their favorite word is "empowerment." Their ability to frame the inequity issue is as sharp as their proposed solutions are vague.

Tools: Pro-poor advocates use the empirical fact of inequity in every health sector in the world. They use quantitative tools such as benefit-incidence analysis or outcome-incidence analysis to point to the problems, and qualitative tools such focus group work to point to possible answers. Gender equity advocates use the same tools as the pro-poor group but have the added advantage of being the only group able to talk about gender issues without sounding sexist.

[1] See Annex 2 for a discussion of some measures of the burden of disease.

LENDERS AND DONORS[2] (also known as development partners or moneybags)

Objectives: Understanding the true objectives of this group requires a stand-alone three week course. They tend to be obsessed with the word "Reform" and get nightmares about a group of people they call "Management." This group can be easily identified in a prioritization meeting, they are the worst dressed and are driven around in the newest sports utility vehicles.

Tools: Money. With it, they hire as many economists and epidemiologists as needed to torture the empirical facts.

III. PRIORITIZATION CRITERIA

Left to their own devices, each of the advocacy groups identified in the previous section would prioritize using criteria derived from their objectives. When all the advocates are involved in prioritization the criteria multiply in number. A first step, then, in a prioritization exercise is simply listing and defining the selection criteria. For any given country, the list could include (in no particular order of priority!):

- **EQUITY CONSIDERATIONS**. Equity is many things to many people so getting a clear definition is essential. Looking first at groupings, equity could involve income categorization, gender, age groups, tribal groups, social classes, or regional clusters. Turning to measures, equity can be of health and family welfare outcomes, access to goods and services, or financial burden. Clearly, from this innocent-looking single criterion, we can construct an almost infinite number of definitions or dimensions. Advocates for equity will assign higher value to services or goods that would more likely benefit the group they are advocating for.

- **BURDEN OF DISEASE (BOD)**. Whether measured in DALYs, QALYs, or YLLs[3], the burden of disease uses a common currency (for the lack of a better term) to associate a comparable set of burden numbers to a list of health conditions. If done well, an extremely rare occurrence, the numbers can be presented by order of burden and by population subgroup in order to provide useful advocacy information for the different groups. For BOD to be useful in prioritization, the analysis should be country specific, use recent data, and be based on a well functioning and representative set of information systems. If any of these conditions are not met (and they never are), BOD will be attacked as misrepresenting the true burden by those that cannot use the numbers for advocacy.

- **COST-EFFECTIVENESS**[4]. Made popular by the defense industry when it was used to find the cheapest ways to kill the largest number of people, cost-effectiveness is now used by health specialists to maximize the positive health outcomes with the limited available resources. While it is basically an economic evaluation tool, public health specialists, much more so than economists, swear by it as a primary prioritization tool. A cousin of cost-effectiveness, cost-benefit, has been shunned by the

[2] An important group not highlighted in the list here, but can be quite influential, are known as "The Contractors" (also known as "cellphones"). These are the guys who build hospitals, sell equipment, and push drugs. They tend to work behind the scenes through one or several of the advocacy groups identified in the list.

[3] Disability-Adjusted Life Years, Quality-Adjusted Life Years, and Year of Life Lost.

[4] If we are to be accurate, what is now called cost-effectiveness is actually cost-utility, a first cousin of real cost-effectiveness, since the measure of effectiveness used (QALY or DALY) assumes preferences. See Drummond 1987.

public health community for shamelessly assigning monetary value to human life (something personal injury lawyers do every day).

- **PUBLIC GOODS**[5]. The single most confusing concept ever put forward by economists and a cornerstone for public finance economics. The distinction between public and private goods is based on two characteristics of a good or service that affect the market's ability to provide a socially optimal quantity. These characteristics of a public good are (i) consumption by a number of individuals or households at the same time (non-rival in consumption) and (ii) the inability to prevent people from consuming it (non-exclusionary by providers). The overwhelming majority of health and family welfare services are private goods according to this definition. Public health specialists, on the other hand, who define their jobs as safeguarding the public health, find it difficult to accept this definition. Economists argue that pure public goods, such as the provision of public health information, should receive more public attention (and probably more public resources) than private goods.

- **EXTERNALITIES**[6]. The second most confusing concept ever put forward by economists and another cornerstone for public finance economics. It relates to the fact that for some goods and services, cost and/or benefits to society are different than those to the producers and consumers directly involved in the exchange. Economists admit that while a number of health services are private in nature, they produce benefits to society beyond the direct benefits to the consumers. Because of that difference and without government action, markets will most likely under-produce the good or service with a strong positive benefit externality as compared to the socially optimal level of production. Economists argue that if externalities are large, public attention may be required, and in some cases public financing or even public provision is justified.

- **RISK POOLING**. Economists not only use concepts that most non-economists do not understand, they also use terms that most economists do not understand. The basic issue behind the risk-pooling criteria is that some health conditions are rare and too costly for most uninsured individuals to pay out-of-pocket for. Economists have identified some characteristics of health insurance markets (described using wonderful terms such as "moral hazard" and "adverse selection") that will most likely make these markets fail without some element of public intervention. Public intervention, therefore, to create insurance markets is justified on efficiency terms.

And as if the list of criteria is not long enough, many other dimensions should be considered in putting together the package[7] of benefits and have an impact on prioritization:

- **EXISTING CAPACITY TO DELIVER**. When designing a benefits package, it is important to take into account the capacity of the system (public or private) to deliver the services being considered. Given

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[5] The naming of the concept (public goods) has generated countless, and mostly useless, debates between economists and public health professionals. Had economists named it something different, such as "easily shared goods," much time would have been saved.

[6] As if this is not confusing enough, the international health community recently coined a new phrase that completely mixes up externalities with public goods; the badly named "international public goods". In essence, they selected things with large social and cross border externalities, such as communicable diseases, and called the services that address such diseases international public goods even though these services are private in nature.

[7] Defining and financing a package of benefits (or services) is a popular form of making concrete a prioritization exercise in the health sector. Packages became especially popular after the publication the World Bank's 1993 World Development Report: Investing in Health.

time and resources, any health system can deliver any set of services to all the population. Time and resource constraints, however, are the reason prioritizing is needed in the first place. This makes it important to both be current on the capacity and to take into account the investment costs in expanding or adding new services (interventions or benefits).

- **LINKAGES ACROSS SERVICES (SYSTEMS APPROACH)**. A defining characteristic of a package is that many of the services provided are delivered at different levels of service delivery. Any package design should then consider both the capacity of all the levels of service delivery as well as the linkages between levels.

- **BUDGET RIGIDITIES**. Implicit in a prioritization exercise is the fact that changes will be needed in how expenditures are directed. The operational and practical implication of possible changes in directions is that the budget may have to be changed in ways that are not always politically feasible. The two most difficult issues here are changes in staffing and cutting services that may have constituencies within the powerful upper middle class and service providers (politically powerful professional groups).

- **TRANSITION COSTS**. Developing a package of services or benefits may involve changing focus and orientation of the service delivery or financing mechanisms. Transitional costs associated with this change can be large and need to be factored into the prioritization process.

IV. PRIORITIZATION APPROACHES

Now that we have discussed the need to prioritize (unlimited needs and limited resources), the different ways to measure needs and resources, the main actors in the prioritization exercise, and the criteria they use, we only need to define the rules of the game. What makes prioritization especially challenging is that it takes place in a multi-dimensional universe of objectives and there are no clear or easy way to follow rules. A number of methodologies have been followed over the years to approach prioritization in a systematic way[8]. Described briefly below are four such approaches[9].

DEFINING CATEGORIES OF CARE. This approach was used in New Zealand in the early 90s. It takes the less political approach of broadly defining general categories of care then leaving it to the politicians and health providers to make more specific decisions with the categories. While it limits the effect of opposition, the lack of specificity may cause inefficient allocation of resources and create conflicts of interest.

UTILIZING EXPLICIT CRITERIA. Variants of this approach were used in the United Kingdom, the Netherlands, and the state of Oregon in the US. In this approach, a specific basic package of services is provided or financed based on an agreed criteria list. The criteria can include community needs, community preferences, economic evaluations of cost-effectiveness, public health considerations, and any of the other topics identified in the earlier section of this paper. While this approach will produce a specific set of benefits, it is not easy to achieve. Difficulties arise from the measurements and achieving agreements on the relative weights assigned to each of the criteria used.

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[8] A literature review of more than a hundred published articles and books on prioritization and resource allocation in the health sector found very little agreement on the best way to move forward but found a number of telling titles (e.g. “Reluctant Rationers” and “No Easy Choices”).

[9] This section relies heavily on Bitran, 1998 which relied heavily on Cumming, 1994.

USING GUIDELINES OR TECHNOLOGY ASSESSMENTS. This approach focuses on the technical efficacy of different interventions. Guidelines of treatment are provided to the practitioners and patients to follow. While it clearly defines when services are technically beneficial, this approach often does not include the economic component or community preferences and values.

USING FORMULAS OR MODELS. This approach uses models and assessments, such as the burden of disease and cost-effectiveness, to create a package of services. This involves the empirical work of collecting information on the costs and benefits of all the interventions to be considered then creating a common currency for measuring and comparing the benefits. Social preferences can influence how the different benefits are combined and valued. While this approach does combine qualitative and quantitative methods, it needs a lot of data (typically not available in the required level of detail) and does not take into account the economic rationale for public intervention.

Each of the approaches briefly and generically described above has advantages and disadvantages. It may be possible to combine different elements of individual approaches to tailor an approach appropriate for a specific country.

V. WHO LOSES?

Any way you cut it, a prioritization exercise such as developing a benefits package will produce winners and losers, especially in poor countries with large populations and small budgets for health. Losers in this context are the group of people that inevitably will get less, in terms of benefits or services, than others. The technical word for that reality, and a word that will never make an appearance on the lips of a politician, is "Rationing" (the other R word[10]). The remaining question, then, is "who are the losers?"

In the Shiroishi family budget prioritization problem, it will not be hard to figure out who won and who lost out. In the more complicated problem of prioritizing public health spending, however, identifying the losers is a little more involved. A important skill for managers of prioritization exercises is the ability to hide the fact that some groups will get less than others[11]. No budget, or any other political document for that matter, will ever have a section that highlights the losers. Equity advocates, however, have found ways and developed tools to help identify the losers.

Before summarizing the tools used to identify the losers it is useful to explore for a minute what common sense would tell us about who is likely to lose from a prioritized package or a budget. The expression "the squeaky wheel gets the grease" is a simplistic way of representing the link between attention and visible need. In a similar way, you would expect policy attention in the health sector (re: resources) to be paid to the groups in society that make the loudest noise about their perceived needs. It would not be surprising then that those segments of society that have the least "voice" or political influence are likely to be the ones that receive the least attention and are the most likely losers (even if the need is probably the highest in this group). In operational terms, this would mean rural residents, the poorest groups, and socially marginalized groups.

[10] Just in case you forgot, the first R word is *Reform.*

[11] A skill not that different from the ability of economists to bury critical assumptions in unreadable language.

How can we check to see if common sense is accurate in this case? Are those groups with the least "voice" the losers in the annual priority setting exercise undertaken by each ministry of health (also known as the budget)? A number of relatively crude tools have been employed in the health sector to look at the equity dimension of public spending. One tool looks only at the supply side of the story by attempting to figure out where public resources in the health sector flow. In other words, simply following the money. A second tool combines some supply side information on expenditures and costs with information on the use of health services by different population groups.

FOLLOW THE MONEY. This is usually more easily said than done. Budgets are wonderful documents if you are looking at the overall picture, but are designed in ways to hide and confuse if you want to examine detailed allocations. The main source of difficulty in attempting to decipher a budget are heading definitions. You would be amazed at what is usually accounted for under the prevention and promotion heading. What is important to remember is that you cannot take headings at face value. What is needed is a detailed exploration of what the accountants in the Ministry of Health used to classify cost headings[12].

Once you have cracked the budget heading codes, you can turn your attention to programmatic choices. A series of questions about the way resources are targeted[13] can help you find the losers:

Services Targeting:

i. Are resources flowing to address diseases of the poor[14]?
ii. Are resources flowing to preventive and promotive services?
iii. Are resources flowing to Behavior Change Communications?
iv. Are resources flowing to appropriate levels of care delivery?

Geographic Targeting:

i. Are resources flowing to regions with the most need?
ii. Are resources flowing to rural areas or to urban slums?

By examining the flow of resources to programs, service levels, and regions, patterns and gaps emerge. While the story may be different from country to country, typically we find that rural areas and urban slums receive less public spending than other areas. We also typically find the patterns of spending moving away from interventions that address the needs of the poor that are delivered at levels of care and facilities accessible by the poor.

WHO IS CAPTURING THE PUBLIC SUBSIDY. The second tool for understanding who are the losers in prioritization exercises is "Benefit Incidence Analysis[15]." It is a crude but politically powerful way of measuring who is gaining from government spending. By simply combining two empirical facts: (i) who is using the services , and (ii) the cost to the government of making the services available, it is easy to see which groups are actually benefiting the most from publicly provided or financed health services.

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[12] You can learn more over a beer (or a cup of tea) with a mid-level accountant at the Ministry of Health than by spending days trying to make sense of the 300 page budget and excel sheets.

[13] The term "targeting" gives the unfortunate impression that poor people have bulls eyes painted on their clothes. The Political Correctness Police have yet to come up with a less militaristic term.

[14] While the poor suffer disproportionately from all types of diseases, the burden of communicable disease, what public health specialists refer to as the unfinished agenda, falls mainly on the poorest.

[15] Yet another example of how economists use big words to make simple concepts appear more difficult.

The problem with Benefit Incidence Analysis is that it is data intensive. Two types of information are needed. First, you need a detailed household survey that includes information on health services use (preferably by the level of care) and allows for grouping individuals by socio-economic characteristics (such as wealth or residence). The second type of information needed is the unit cost to the government of providing the different types of services (typically a hospital overnight stay or an out-patient consultation at the different levels of facilities)

Once you have these two types of information, very simple manipulation of the data allows you to figure out the winners and losers. Basically five steps are needed:

1. Group users by socioeconomic category
   –Income, sex, residence, tribe or caste, etc.
2. Determine service use by group
3. Calculate the unit cost for the service
4. Subtract the out-of-pocket fees from cost
5. Multiply the net unit cost by the group service use to determine group benefit

Like the other diagnostic tool, Benefit Incidence Analysis conducted in many countries confirms our common sense expectation that those with the least voice get the least. Recent reviews of the international experience with measuring equity of public spending on health in developing countries indicate that:

1. Public spending is most pro-poor at basic levels of social services.
2. Discrimination by race, gender, caste, and minority status plays a role in shifting utilization of publicly provided or financed services.
3. Public spending in the health sector appears to be more pro-poor in urban settings than in rural setting.
4. Socialist countries have a better pro-poor record than non-socialist countries.

VI. BANGLADESH CASE STUDY: BUYING A $12 PACKAGE AT $3.5

Annex 1 documents the actual prioritization experience of the health sector in Bangladesh in the late 1990s.

ANNEX 1
BUYING A $12 PACKAGE AT $3.50, A BANGLADESH CASE STUDY

(The World Bank and the Ministry of Health and Family Welfare of Bangladesh have had a productive and long standing relationship almost since the independence of Bangladesh from Pakistan. The Bank has led a consortium of donors and development agencies in supporting health and population sub-sectors through technical assistance and resources.)

The time-log presented below describes the events leading to and during project preparation for the Bangladesh Health and Population Program Project (HPPP) also known by the Government of Bangladesh as Health and Population Sector Program (HPSP) and previously known as the Fifth Bangladesh Health and Population Program (HAPP-5)[16].

LOG ENTRY NUMBER 1:

December 7, 1995, Ministry of Health and Family Welfare, Dhaka:

A meeting took place between the office of Secretary of Health and Family Welfare and World Bank staff members to discuss the nature of the next phase of Bank and consortium support. There was a sense of urgency because the existing project, the Fourth Population and Health Project (FPHP[17]), was expected to end in less than two years. While a consensus was not reached during the half day meeting, some important themes emerged:

1. The project approach has helped Bangladesh improve health and family welfare outcomes but it is too expensive, it has left the Ministry without a sustainable management structure, and there is little coordination between the more than one hundred projects supporting the Ministry.[18] (the Ministry and the consortium could not agree on a solution mostly because neither group understood what was meant by a program approach)

2. The functional integration experiment between the two service delivery directories (health and family planning) has failed, leaving the Ministry with redundancies in delivery of services, management and monitoring. (the Ministry and the consortium could not agree on a solution and the Ministry felt it ironic that the same donors that pushed for a separate branch for family planning 15 years ago were now interested in integration)

3. Given the recommendations of the World Bank's 1993 World Development Report, the Ministry was interested in developing and financing an essential services package of cost-effective health and population services that addresses the burden of disease in Bangladesh. Unlike the other two

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[16] Historic Note: Naming World Bank projects may seem trivial to most people but the amount of time and resources spent on the subject reflects the importance attached to it by Bank Management. The history behind the naming of HPPP (or HPSP but not HAPP-5) may be a topic worthy of a Ph.D. thesis from the London School. At issue were at least four important topics: (i) Should health come before population?, (ii) should it be the fifth in a series or a new way of doing business?, (iii) is it a project, a program, or both?, and (iv) HAPP sounds too much like Happy.

[17] Note that population came before health in the fourth project.

[18] The Fourth Project alone supported 66 sub-component projects ranging from malaria to MIS and health economics.

themes, the Ministry and consortium representatives agreed to the objectives and started mapping out a strategy to achieve them.

[*Editors Note: to keep this case study simple, all references to and entries about the first two themes from the original time-log have been deleted. Readers should keep in mind, however, that eventual agreements on the first two themes, program approach and integration, did play important roles in the development of a services package*]

LOG ENTRY NUMBER 2:

January 23, 1996, Ministry of Health and Family Welfare, Dhaka:

Representatives of the consortium visiting mission for the Health and Population Sector Strategy met with Ministry of Health and Family Welfare officials to review mission findings and to discuss the main messages of the draft mission aide-memoire.

On the subject of the Essential Services Package, the mission agreed with the government on the following:

1. A technical working group[19] will be created to focus on devising a package of health and family welfare interventions to be delivered.

2. The technical working group will focus on selecting the interventions, identifying the level of services delivery for each intervention, and identifying the inputs needed to provide the intervention (personnel, training, supplies, drugs, …)

3. The technical working group will have at its starting point the package identified in the 1993 World Development Report: Investing in Health. The selected interventions, however, should reflect the burden of disease in Bangladesh and the capacities of the system to deliver these interventions.

4. The technical working group and all involved with the sector strategy should keep in mind that Bangladesh **only spends 3.5 dollars per capita per year** on publicly provided or purchased health and population services, while the recommendations of the World Development Report 1993 was that **at least 12 dollars per capita per year is spent** on the package.

5. The development of Bangladesh-specific cost-effectiveness measures for all the possible interventions will take too much money and time.

LOG ENTRY NUMBER 3:

September 26, 1996, World Bank Resident Mission, Dhaka:

Members of the development partner consortium[20] met with Ministry staff to discuss developments since the January mission. The World Bank staff member tasked to participate in the technical working group

[19] Six other technical working groups were created to focus on other important areas such as support services, management, finance, etc.. All references to the other technical working groups have been edited out.

[20] The Bangladesh Development Partners consortium for health and population is made up of donors, lenders, and technical agencies. Donors include AusAID, Canadian CIDA, The European Commission, Japan, German KfW

on the Essential Services Package had circulated an alarming memo that motivated this meeting. The concerns raised in the memo can be summarized as[21]:

1. The technical working group working on the package has evolved into four groups:
   - Child health
   - Reproductive health and population services
   - Communicable diseases
   - Simple curative care

2. Each of the subgroups has grown in size with more government and development partner participants

3. Each of the subgroups has been developing **a wish list** of interventions with no attention paid to cost or priorities.

After discussions, it was decided that some additional inputs were needed to facilitate the work on developing the package. Specifically:

1. WHO will finance a health economist consultant to determine how much is currently being spent on the interventions being considered for the package.

2. The Health Economics Unit of the Ministry will be asked to update their paper on the resources available for the package and meet with each technical group (and all the subgroups) to re-explain the severe budgetary constraints.

3. The World Bank health economist working with the Finance technical working group, will be asked to work with the technical working group developing the package to help them develop a plan for prioritization of the essential services package **shrinking it from the theoretical 12 dollars to the real-life 3.5 dollars available**.

LOG ENTRY NUMBER 4:

Summaries of the WHO economist consultant and Health Economics Unit reports:

Since the objective of the consultancy was to provide a quick set of estimates of the current public expenditures on elements being considered, the WHO consultant used top down costing methodology using the definitions provided by the Technical Working Group on developing the package.

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and GTZ, The Netherlands, Swedish SIDA, the UK's DfID, and the United States' AID . Technical agencies include WHO, UNFPA, and UNICEF. Lenders include the World Bank and Asian Development Bank.

[21] Once again, the time-log has been edited to delete all issues not directly relevant to the prioritization of an essential services package. In this entry, references to issues such as linkages between the four subgroups, training requirements, and comments about the relative generosity of WHO, the host for the technical working group, as compared to the World Bank, in providing tea and cookies, were deleted.

Table 1: Summary of Essential Package Cost Estimates Before Prioritization

(Current spending on elements being considered for the package)

ESP Item	Annual Costs $US (000)	Cost per capita $US
1. Reproductive Health		
1.1 Family Planning	176,000	1.47
1.2 Maternal Health and Neonatal Care	24,079	0.20
2. Child Health		
2.1 EPI	20,018	0.17
2.2 EPI Plus	12,060	0.10
2.3 School Health	1,523	0.01
2.4 Disease Surveillance	1,303	0.01
3. Disease Control		
3.1 TB	4,060	0.03
3.2 leprosy	1,249	0.01
3.3 Tropical Diseases (includes vector control)	1,861	0.02
3.4 Control of Diarrheal Disease	5,001	0.04
3.5 Integrated management of Child Illness	2,120	0.02
4. Nutrition	11,217	0.09
5. STD and HIV/AIDS		
5.1 STD Treatment	4,500	0.04
5.2 Prevention	2,000	0.02
6. IEC	15,800	0.18
7. Additional Services	131,600	1.10
TOTAL	**420,704**	**3.50**

The Health Economics Unit at the Ministry updated their resource envelope work and summarized the simulation results and presented them to each of the technical working groups (and the mushrooming sub-groups). The message was simple, **even if health and population was made a priority sector by the Ministry of Finance, resources are still very limited**.

Table 2: Simulation Results for Expected Resource Envelope
(% of Gov. is percent of government expenditures allocated to the health and population sector, Per capita in 94 US$)

Fiscal Year	Baseline		Priority	
	% of Gov	Per capita	% of Gov	Per capita
1998/99	8.0%	3.5	8.9%	3.9
1999/00	8.0%	3.6	9.3%	4.2
2000/01	8.0%	3.7	9.6%	4.5
2001/02	8.0%	3.8	10.0%	4.8
2002/03	8.0%	3.9	10.4%	5.0

LOG ENTRY NUMBER 5:

October 6, 1996, World Bank Resident Mission, Dhaka:

Following up on the September 26 meeting recommendations, the World Bank health economist met with members of the Technical Working Group working on the package to help devise a prioritization approach. Not surprisingly, the meeting was difficult to manage. Most of the time was spent discussing the criteria to be used in making financing decisions. After many compromises a list was agreed to:

- potential health impact of intervention (cost-effectiveness);
- cost (unit cost per capita);
- provision feasibility (technical capacity to provide);
- public need/public health importance (burden of disease);
- scope of private provision and finance; and
- economic criteria (public goods, externalities, etc.).

The group agreed to meet again to start applying the prioritization criteria to each of the interventions being considered by the four sub-groups.

LOG ENTRY NUMBER 6:

October 15, 1996, Ministry of Health and Family Welfare, Dhaka:

Building on the agreement of the October 6 meeting, the same group advanced the prioritization agenda by methodically applying the criteria to each intervention. The group developed a matrix that listed the interventions on the vertical and the scores assigned to them for each criterion on the horizontal. The group also identified the following issues and solutions:

1. They did not know how to move forward with prioritization beyond the matrix.

Suggested Solution: devise a voting scheme for prioritization.

2. They could not achieve consensus on the weights given to each of the prioritization criterion.

Default Solution: assign equal weights.

3. They did not have Bangladesh-specific cost-effectiveness numbers for most of the interventions being considered.

Suggested Solution: Use the 1993 World Development Report Numbers to determine the set to be considered but do not use cost-effectiveness to rank interventions within the set.

4. Because of the highly consultative approach used by the Ministry to develop the package and the strong participation by government staff, NGO representatives, advocacy groups, and the development partners, expectations from the package are high. It will be difficult to cut out low priority interventions.

Suggested Solution 1: The voting methodology and activity has to be transparent and include representatives of the advocacy groups.

Suggested Solution 2: If it is politically difficult to completely cut out an intervention, consider phasing in it as a way of cutting costs.

5. The group was concerned that the development of the package will have to take into account the two other structural changes being discussed, namely the change from a project to a program approach and the integration of the health and family planning. Both changes have implications to service delivery and staffing.

Suggested Solution: Slow down the development of the package until clear indications are available for the direction of the other reforms.

LOG ENTRY NUMBER 7:

August, 1997, Ministry of Health and Family Welfare, Dhaka:

The visiting consortium pre-appraisal mission met with the Project Preparation Team to discuss the latest developments the preparation of the services package. The Project Preparation Team gave a presentation and mapped out the way forward for completing the task. Relevant highlights from the presentation:

- A series of workshops have been held to address the issue of prioritization. Participants had to understand the prioritization criteria and agree on ratings for interventions. A two stage prioritization approach was agreed to. First the participants used the non-economic criteria (the first three listed in log entry 5). The second stage applied the economic criteria.

- Using a modified Delphi technique for voting the 17 Prioritization Task Force members individually scored each intervention according to the criteria. Scores were then averaged and circulated. After a discussion of the scores a second round of voting took place. Two trends were evident:

  - All Task Force members scored almost all interventions very high on the ten-point scale.
  - Re-scoring did not change the results much.

- The scores from the voting exercise were provided to the Project Preparation team and the Health Economics Unit of the Ministry to use the economic criteria for the second stage of prioritization. *[Editors Note: while the discussion about the first stage of prioritization was detailed, the discussion about the second stage was vague]*

- It was very difficult to completely eliminate a number cost-effective and important interventions so the decision was taken to phase them in.

- The Technical Working Group not only identified the interventions but devised an operational plan for delivering it at each of the three primary care level, Community, Union, and Thana. Furthermore, bottom-up costing was done to identify real costs at each level.

The visiting pre-appraisal mission was impressed with the amount and quality of work the Ministry had undertaken but was concerned about one issue. The draft first year budget presented by the preparation team showed expenditures at US$519 million, while the resource envelope analysis shows the expected available resources for the first year to be US$440 million; a financing gap of US$79 million for the first year alone. The financing gap widens even more when year 2 through 5 of the program are considered.

After the hard work of limiting the package, the prospect of cutting yet another US$79 million was not good news for the Preparation Team. After a long discussion, the team agreed to prepare a "contingency operational plan" for the lower budget (US$440) for the appraisal process.

LOG ENTRY NUMBER 8:

February 7, 1998, Ministry of Health and Family Welfare, Dhaka:

The visiting consortium appraisal mission met with the Project Preparation Team to appraise the package of services and the operational plan. The mission accepted the proposed operational plan and invited the government to negotiate the program in Washington in May and set a World Bank Board presentation on June 30[22].

LOG ENTRY NUMBER 9:

June 30, 1998, the World Bank Head Quarters, Washington:

The World Bank Board approved the five-year US$2.9 billion Bangladesh Health and Population Program Project. *[The World Bank, through IDA, would finance US$250 million of the total package]*

[22] It may interest you to know that June 30th was the last day of the fiscal year for both the Government of Bangladesh and the World Bank. If you believe that the Board date and the end of the fiscal year is a coincidence, I have some prime property in the Bekaa Valley that may interest you.

ANNEX 2
MEASURING LIMITED RESOURCES AND UNLIMITED WANTS

There are a number of different ways of defining and measuring resources and needs. Evidence-based analysis provides a quantitative picture of the *wants* or *needs* faced by a sector or a country. We can use burden of disease analysis to capture the most urgent needs from an epidemiological perspective. But are there perspectives other than epidemiology? And do the choices implicit in the design of a single measure (such as Disability-Adjusted Life years--DALYs) bias the results in a systematic way? If the answer to either question is yes, and it is for both, then relying solely on a burden of disease approach to defining *wants* and *needs* may not be the best approach.

In addition to the documented shortcomings of DALYs and other burden of disease measures (see box 1), there are questions regarding the *needs* approach followed by the public health community and represented by the burden of disease and cost-effectiveness. At issue is the observed gap between the *need* for services as highlighted by burden of disease studies and the *use* of available services seen through service statistics and household and utilization surveys. By only looking at *need*, we may be discounting the factors that create the sizable gap between *need* and *use*. Moreover, the mere fact that a service is needed does not automatically imply that it should be publicly financed.

BOX 1: Technical limitations of the DALY's approach

1. **DALYs imposes social preferences that have not been validated.**
Social preferences such as the discount rate, the age weight, and the disability scale are arbitrary and do not necessarily reflect the preferences of those affected by the results of the analysis. Setting priorities through mortality information by cause imposes an equivalent set of values that do not necessarily reflect the beneficiaries values. Another criticism is that each country or small population should be formally consulted about the preferences involved in DALYs.

2. **The age weights do not reflect common preferences among health specialists, economists, and general population.** It is difficult to reach a preferred ratio for the DALY formula. For example, the DALY values a 50 year old at about 25% of a 25 year old, and at the other extreme of the age span, one year of life at birth is set equal to one year at the age of 25 years old. No matter what changes are introduced to the formula it is impossible to come to one set ratio.

3. **The exclusion of late fetal deaths is unjustifiable.**
DALYs exclude deaths of fetuses that are born 1000 grams or pass the 28 week gestation period. If a woman has access to proper care, the fetus can be saved. If the burden of disease assessment ignores late fetal deaths, the cost effectiveness of treating obstetric complications is nil.

4. **The application of the DALY at the national level over-estimates the years of life lost.**
There are two arguments that support the use of the life table model with high life expectancy. (1) The model should have at least as many years of life expectancy at birth as the known national population with the highest life expectancy. (2) In order to avoid fostering health inequalities between countries, the standard model for low mortality countries should be applied to high mortality countries. These arguments do not apply to national level. It is also unrealistic to use a life table with 80 years for countries with life expectancy at 60 years or lower.

5. **DALYs violate the rule of rescue.**
DALYs are insensitive to the density of years lost by individuals. For example, 30 years lost for one individual equals one year lost by 30 individuals.

6. **The disability weight ignores the handicap attached to some permanent disabilities in different societies**
The same disability has different effects on the lives of individuals in different countries. The health loss of these individuals is greater than is estimated by the DALYs.

7. **The disability due to cognitive development is not fully captured.** The DALY fails to capture the disability and many of the causes of cognitive developmental impairments such as protein energy malnutrition.

8. **DALYs are not applicable in countries with scarce health information.**

The measurement of the "resources" part of the equation is not straight forward either. There are many dimensions to costing and various ways of measuring costs (Box 2 highlights some of the complexities and choices). Moreover, the way costs are presented can influence decision making. Two examples can illustrate this point. Cost information can be presented with a programmatic point of view, capturing only costs to the providers, or from a societal point of view, capturing the real costs to families and communities (e.g. transportation, lost wages, etc.). If a societal point of view is used, the cost to families and communities becomes part of the prioritization discussions and may lead to service delivery patterns closely aligned with community demand. Ignoring community cost considerations, as all of us almost always do, risks financing services that are rarely used by the targeted groups.

The second example relates to looking at averages versus marginal costs. Costing may look at marginal costs, capturing only additional costs, or look at average costs, capturing the unit cost of a services. For many years, the insurance industry in the United States looked at the average cost per day for hospital stays when recommending lengths of stay from a cost point of view. What was clearly missed was that the costs per day depended on the intensity of medical procedures. One day in the intensive care unit after extensive medical procedures can cost the hospital a lot more than the last days in a hospital stay, typically for observation, when the main costs are hotel services.

Box 2: Costing Dimensions (an Idiot's Check-list)

1. Are Objectives Clearly Identified? Choices to be considered in the next 12 questions depend primarily on the basic objective of the costing exercise because *"if you do not know where you are going, any road will take you there."*

2. Does the Methodology Selected Match the Objectives? Do not let fancy names for techniques and methodologies fool you, most costing is simple algebra. However, it is important to match the level of accuracy of data needs with the objective of the exercise.

3. Does the Methodology Account for Overhead or Administrative Costs? A simpler way of asking this question is "are we counting everything?"

4. Does the Methodology Correctly Apportion Joint Costs? It is important to make sure costing activities use common sense and practical ways of dividing up shared cost items among the different interventions.

5. Does the Methodology Distinguish Between Fixed and Variable Costs? The main issue here is that some cost items grow with added applications of interventions while others, like rent, are not a function of the number of patients or clients. The budgetary implications are important if utilization rates are expected to change.

6. Does the Methodology Distinguish Between Recurrent and Capital Costs? Building a hospital is considerably different from buying consumables in that the hospital can be used for a long period of time while consumables lose their value after use.

7. Does the Methodology Produce Average or Marginal Costs? (see example 2 in text)

8. Which Point of View Does the Methodology Take? (see example 1 in text)

9. Does the Methodology Address Opportunity Cost or Just Accounting Costs? It is rare that a costing study actually accounts for opportunity costs of using resources.

10. Does the Costing Exercise Take Advantage of All Available Data Sources? One would hope so, but you will be surprised how lazy economists are on this one.

11. Are the Data Collection Methods Used Appropriately? At the heart of costing is data collection. It is critical to ensure that the data is reliable and representative.

12. Are All the Assumptions Clearly Stated and Realistic? Economists are masters at making assumptions when data is not available but typically fail to document them.

13. Was Sensitivity Analysis Undertaken to Test Assumptions? Listing the assumptions is not enough. It is important to see if the assumptions make a big difference.

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