This is the fourth of a series of six sessions focusing on the linkages between health, nutrition, population and poverty. This session will attempt to delineate the complex relationship between health system and the poor and propose analytical tools to examine how these systems perform in serving the needs of the poor.

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Session Objectives

To answer the following questions:

- How to assess the performance of the health sector in serving the poor?
- How health financing functions are related to assuring that an adequate volume and quality of services are accessible to the poor?
- What have we learned from HIPC countries preparing PRSPs?

We will try to answer three basic questions in this session.

First, how can we assess performance of the health sector with respect to the poor in the areas of: (i) access, (ii) availability, (iii) organizational quality, (iv) utilization, (v) continuity, (vi) technical quality, (vii) social accountability, (viii) allocative efficiency, and (ix) equity in spending?

Second, how the health financing functions of revenue collection, pooling of funds, and purchasing are related to the ability of a particular health system to assure that an adequate volume and quality of services are accessible to the poor?

Finally, by using examples from analytical work conducted by HIPC countries we will have the opportunity to start learning from the on-going experience of preparing PRSPs and I-PRSPs.

These are all big and important questions, and we can only touch lightly on them in this short session. However, we hope to provide you with a framework that will be helpful as the questions are explored within specific countries.
We will start with a brief look at where this topic fits into the overall PRSP framework. We will then cover the dimensions of performance, from access to health facilities all the way up to how the public budget is spent, and how to understand patterns of private spending.

For each of these dimensions, we will discuss the typical set of problems encountered in low-income (and even many middle-income) countries and the reasons behind them; useful ways to measure key indicators; and what policy actions and programmatic strategies have been used to tackle the problems.

We wish to reiterate that the topics covered here are very broad, and we cannot do full justice to them. We hope that this “once over lightly” approach will stimulate further interest, reading, discussion and thinking about the topics, and enrich your work.
In this session, we deal largely with characteristics of the supply of health services, but it is very useful to take a minute to look back at the overall PRSP HNP framework and see how that supply relates to characteristics of demand.

As indicated in this slide, for example, whether existing health services are truly accessible to the poor is partly a function of whether they are located in the proximity of poor communities--but it is also a function of whether the prices charges are affordable, given the income levels of the poor. It is a function of whether there is sufficient knowledge on the part of household members about what health services they need at a given time, and where those services are available. It is a function of whether the services are offered in a way that is perceived to be convenient, respectful and responsive by the population. Many of the aspects dealing with the household characteristics and response have been covered in Session 3.

On the right hand side of the PRSP framework, we can see that the ability of the health system to respond to the needs and demands of the poor is largely related to high-level resource allocation decisions, and the relative priority afforded to the health sector within a country’s development program. Many of the features dealing with policy context and actions will be covered in Session 6.
Are Health Systems Important?

- Typically, most improvements in health outcomes in Europe over the 19th and early 20th century are attributable to increase in income.

- Yet, a 1990 analysis of changes in life expectancy in 94 developing countries ascribed half the improvement to the provision of preventive and curative health services.

After the earlier presentation on the vital role of the household as a producer of health (Session 3), you may wonder what part the health system plays in determining health conditions. Is it important at all?

Research indicates that most improvements in health outcomes in Europe over the 19th and early 20th centuries were attributable to increase in income, rather than improvements in the delivery of preventive and curative health services.

However, a 1990 analysis of changes in life expectancy in 94 developing countries ascribed half the improvement to the provision of preventive and curative health services.

We can argue one way or another about the importance of the health sector, but the fact is that most externally financed development projects in health are designed to affect the quality and quantity of health services. And so there is good reason to ask (and answer) questions about how well health services meet the needs (and demands) of the poor--and how we can measure this performance.
Let’s start with a brief discussion about what we routinely observe about the relationship between the health system and the poor. First, we generally see that the poor suffer from poor health, often attributable to diseases that can be easily prevented and/or treated at an early stage by appropriate interventions. Clearly, there is some mismatch in volume or type between the services being supplied and what is “needed” or demanded. Second, looking at poor households, we usually find that families recognize the importance of good health, both for their general welfare and for its effect on earnings. But we see that households generally use less of services that appear to be “available” (that is, nearby and even affordable, counting direct prices) than public health professionals would see as desirable to achieve a positive health outcome. We see that even the poor, who are typically seen as the target of government-financed actions in health, often opt for privately provided services--and that these services may not be seen by the public health community as the ones that are essential to good health. Third, looking at the health services themselves, we often see that government health services are not close to the people, or they do not function well, or they are unresponsive to the demands of the population--or all of the above! Finally, peering into the black box of public policy, we see that rhetoric about universal coverage, free services, priority dedicated to primary care and other worthy objectives are not matched by the patterns of spending.
Here is an example of one of the fundamental problems that we observe: Even for services such as immunization that are provided at no charge--and would provide disproportionate health benefits to poor communities--there are striking differences between the utilization by better-off and poor households. Aggregating data for 43 developing countries, for example, we see that the richest households are likely to have a vaccination coverage rate of about 68 percent; the poorest households reach a coverage level only slightly higher than half of that. That difference across the income groups is found throughout the developing world--you can see what it looks like for Sub-Saharan Africa--although some countries certainly manage to perform well above average, as you can see for Tanzania.
The pattern we just saw for immunization coverage is very similar for reproductive health services—in this case, antenatal care. Again, we are talking about services that have disproportionate benefits for the poor, given their vulnerability to reproductive risk factors associated with their social, economic and physical environment.

You can see that for 44 developing countries, virtually all women belonging to the richest 20 percent of the population obtain antenatal care, while only half of the women in the poorest households do. The patterns is essentially the same just looking at countries in Sub-Saharan Africa. But there is some hope: If we look at Kenya, we see that somehow the health system is able to reach the vast majority of even the poorest women with antenatal care.
Throughout the world, health systems have been shown to disproportionately benefit the richest group. The one exception seems to be Latin America, but even there, the analysis above did not take into account the subsidy of governments to social insurance schemes that were shown to benefit most to richer groups.
Now that we’ve shown you a few examples of how health service use differs for better-off and poor households--and how some countries demonstrate good health system performance in some ways--it’s time to turn to a step-by-step process for assessing how well a particular health system is doing with respect to the poor.

We will cover eight dimensions of performance, and for each we will present some suggested diagnostic activities and methods; and some typical pro-poor actions that might be recommended (depending on circumstances). We weave in some country examples throughout.
In introducing the equity dimension into analyses of the health system, we may find it helpful to break down the supply of health services into eight dimensions. For each of these dimensions, we can find both quantitative and qualitative data to help us understand where the gaps are in the health system's ability to effectively cover the poor, and generate good health outcomes.

Let's look at them briefly here, and then we'll look in detail at each one.

To a large extent, the exercise is sequential, the dimensions form a hierarchy: If health services are accessible but not properly staffed, the issue of whether they are properly stocked is irrelevant. And so on. There is little point making progress on one step if the system fails badly on the previous step. These dimensions are examined independently of who finances and who delivers the interventions. It also apply to all interventions whether promotive, preventive or curative.
The first question to think about—the first dimension—is whether health facilities and/or non-facility-based services are available and sufficiently accessible to the poor to enable them to make use of them. Distance is clearly one issue, but travel time will also depend on the availability of roads and public transportation. In Africa and many other places, to consider the seasonal variation of physical accessibility may also be important. The physical infrastructure of facilities also matters—stairs (rather than ramps) may impede accessibility to persons with disabilities and other physically impaired people. Several indicators are commonly used to assess the proximity to health services. It is also important to determine the extent to which distance plays a role in decision-making about when and where to obtain services. Surveys can be useful here. The work leading up to the PRSP in Burkina Faso, for example, cited survey evidence that 40% of health center users had to walk more than one hour to reach the center, while the work underpinning the Mozambique PRSP cited survey evidence that 38% of people who had been sick but had not sought care had not done so because their local facility was too far away.
People living in remote areas, in areas with poor access to infrastructure such as schools or health centers are often among the poorest in a country.

In Mauritania, a large country with low population density, we can see for example a correlation between the poverty level of a province and the level of access to primary care centers.
The logical step to increase physical accessibility might seem to be to build additional government health posts and health centers—and in fact this has been done under a large number of World Bank loans, as well as other development projects. One of the problem with this however, is that it has often been conducted on the basis of a standard approach to reach a norm, measured by an “infrastructure/population ratio”. Generous norms may then provide grounds for continuous investments in richer areas in which norms are not attained, despite a comparatively better access than other poorer areas. An alternative is to identify poorer and under-served areas in which physical access is a documented problem in order to prioritize and target investments. However, that is neither the only nor in many cases the best solution.

Outreach activities can provide core services to populations that may be unable or unwilling to travel to health facilities. Immunization, micronutrient supplementation, ORT, some elements of antenatal and well baby/well child care as well as prevention of malaria (bed nets) can be provided by traveling health workers operating out of their facilities for a few days per week or month.

Mobile teams and campaigns can also provide one time boost to some key interventions. One clearest example of this is the mass vaccination activities during National Immunization Days.

As an alternative to large-scale expansion of the public system, governments seeking to reach the poor can also consider teaming up with non-governmental organizations, many of which already serve remote areas. In most of East Africa, for example, half of the rural hospital beds are operated by religious organizations, financed primarily from private donations and user fees. In Cambodia, the government contracts with NGOs for the provision of services in given provinces. In Thailand, some NGOs are contracted to work with particularly vulnerable groups such as hilltribes, migrants or illegal commercial sex workers.

Caution is suggested in pursuing relationships with non-government providers. Careful design and strict monitoring is required to ensure that the populations served are the ones intended, and not better off households.
Availability of Essential Inputs (Human Resources)

Diagnostics

- **Typical problems**
  - Lack of trained staff (esp. physicians surgeons midwives) in remote, undesirable areas
  - Low motivation of staff to serve poorer groups

- **Typical reasons**
  - Poor deployment policies; no extra compensation for hardship posts
  - Wage gap with private internal and global market
  - Inappropriate scopes of practice, inadequacy job profile/ training

- **Common indicator**
  - Health workers: population x region
  - Health workers: norm x region

The second step in our staircase has to do with the availability of human resources. Services may be geographically accessible, but trained staff, may be unavailable or in short supply part of the time.

The problem of staff shortages in rural areas is fairly widespread in the developing world. The authors of the Voices of the Poor report for Somaliland, for example, noted that “rural people said they rarely see health workers in their localities. If some people have been trained for the villages and other main grazing areas by international agencies, they are not now functional.”

The common problems of lack of trained staff--or inappropriate use of trained staff-- can be explained by market failures, poor deployment practices, absence of financial incentives for health staff to work in poor remote areas, and or inadequacy of staff training and skills profile with needs of peripheral services. The national and the global health market offers possibility of remuneration for health staff that are well beyond the level of salaries of most low income countries. In Cambodia for example, a health worker salary is about US$ 20 per month while a visit to a nurse in his private practice activity is US$1-2. Most public sector staff in urban richer areas supplement their salaries through private practice. A recent study conducted by the Antwerpen Tropical institute showed the actual remuneration of health staff in urban settings to be around 5 times the public sector’s salary.

In addition, in the difficult area of human resources management, it is often the case that doctors or nurses are performing tasks that might better fall into respectively nurses' or auxiliary nurses scopes of practice. Many countries in francophone Africa train midwives, however they often consider themselves overqualified to work in rural areas and stay in the capital city. In Mauritania for example one region’s has less than 10% of the number of midwives necessary to run services, yet in the capital city, there 2.5 more midwives working in the public sector than the number of positions considered necessary by the MOH decision-makers.

Looking at the geographic distribution of health workers can show where there are serious deployment problems. It can point towards specific gaps for certain categories of personnel.
Poorer areas may also be those with lesser availability of human resources to run health activities. Disparities in human resources distribution are common in most countries and often associated with variations in economic opportunities. Disparities may also vary depending on the category of personnel as some categories may have more difficulties to accept to work in remote/poor regions.

In Mauritania, for example, the ratio of population to nurses is not very different between regions. Yet, the ratio of population to doctors displays much more variability. The poorer the region, the larger the ratio of population to doctors. On the other hand another category is even more unequally distributed than doctors: these are the midwives which are crowding in the richer urban centers.
In Cameroon, the regions with the highest under 5 mortality are also the regions with the lowest ratio of personnel to population. Among them, the three poorest regions of the North (Nord, Grand Nord and Adamaoua) are the worst off. This does not mean necessarily that low availability of personnel leads to poorer outcomes yet definitively points out that these are the regions with the most needs that are the most under-served. To mitigate this situation, the HIPC expenditures program include a specific program to improve both infrastructure, staff and drug availability focus in the 50 poorest districts of the country.
Availability of Essential Inputs (Human Resources)

Pro-Poor Actions

• Improved personnel policies, favoring hard-to-reach areas
  – Hardship pay
  – Performance based payments -contracting in-
  – Improved supervision
  – Rationalized job descriptions, health team composition
  – Contracting- out
  – Public private mix

Poor deployment of personnel often touches large questions about: (a) market failures and the general unwillingness of private sector’s health staff to establish practices/ work in poor remote areas, with low density population small pools of patients and low capacity to pay; and (b) the structure of the civil service, and/or medical and nursing education,

Thus, this problem can often only be addressed over the medium- to long term. A few strategies that may provide shorter term benefits include the creation of "hardship pay" packages or other incentives to recruit skilled workers to undesirable (rural, poor) areas. These incentives can be part of contractual arrangements for limited periods of time. In addition, the situation can be improved with better supervision to make sure that the workers being paid to staff a given facility in fact show up for work.

Often, review and revision of job profiles relative to the objectives of the sector is warranted (e.g replacing midwives by obstetric nurses and/or auxiliary midwives). This would result in rationalized job descriptions, with clearer and more appropriate scopes of practice for all members of the health team.

Innovative and successful policies are found in East Asia (Thailand, Cambodia) including contracting in and out on the basis of specific indicators of performance.
Regarding the availability of essential medicines, the poor typically face two major problems: shortages and low quality and/or counterfeit drugs.

The common problems of shortages of essential drugs are often explained by inadequate pharmaceutical and supply logistics and management. In many countries, a predominance of supply side financing leads to rationing.

The emergence of fake drugs has grown principally because of knowledge imbalance: users/patients do not have sufficient information. This is aggravated by the poor capacity of governments to regulate and enforce regulation.

Facility-level studies of the prevalence of stock-outs of essential drugs can provide clues about the extent of these problems.

To understand how these failures affect poor populations, surveys can be useful. Household survey evidence was cited, for example, in the work underpinning the Mozambique PRSP, showing that although a relatively small proportion of sick people not seeking care cited lack of drugs as the reason for their not seeking care, those who did were almost all rural residents.

Surveys and inspections of health facilities are also useful. The work underlying the Burkina Faso PRSP, for example, reported that, when inspected, nearly 20% of facilities had run out of essential vaccines, and in 24% of centers the refrigerators for storing the vaccines did not function. The Mauritania PRSP reports drug shortages as the most important reason explaining the low level of use of services.

Surveys can also provide useful information as to whether the poor use different sources from richer groups when they purchase drugs. In Benin for example, the poor were more likely to buy drugs in the market and less likely to buy them from a formal pharmacy.
Availability of essential drugs and supplies may also vary from region to region and poorer areas have been reported to be those in which shortages of supplies might be the most common.

In Mauritania, for example, availability of some essential drugs (paracetamol, Aspirin, mebendazole and amoxicillin) has been measured in several regions of the country as the percent of days without of shortages during the year. There was no clear conclusion as to whether there was a relationship between the level of poverty and drugs shortages, yet it was clear that it was only in the richest province that availability of drugs was ensured close to 100% of the time.
Services and drugs availability may be less in poorer areas for reasons of price. Because poorer areas are likely to be more remote and have lesser functioning markets, prices of goods that are not locally made may be higher than in richer areas. The example below shows how the price of chloroquine tablet was found to be higher in poorer provinces than in richer ones.
Availability of Essential Inputs (Consumables and Material)

Pro-Poor Actions

- Improve drug management
  - Rigorous forecasting
  - Transparent procurement, reliable internationally certified providers
  - Out-sourced procurement, storage and distribution systems
  - Transparent management, co-management
  - Improved use: therapeutic guidelines
  - Mix of supply and Demand driven financing (eg Prepayment, Drug Revolving Funds, equity funds)
  - Pricing policies: control/capping, tier pricing

There are some clear technical "fixes" for drug supply mismanagement, which (while often very difficult to implement) have had good results. These include improving forecasting techniques, using transparent procurement practices with selection of reliable quality producers only, and establishment of independent procurement and distribution systems. Contracting out parts of the procurement the storage and distribution chain to private firms has proven effective in some countries (which?).

Management systems as well as technical guidelines for the use of drugs help improve and control the quality of medicines provided. Co-management with control of users, civil society representatives and/or communities facilitate good management.

Finally, some financing mechanisms facilitate the availability of essential drugs for the poor in peripheral services. These include demand-driven financing (prepayment or drug revolving funds) and pricing policies, such as price capping and tier pricing to avoid leakage and overpricing. Equity funds can also be established to help the poor exert control through demand and counterbalance the inequitable effect of payment.
The way health services are organized (hours of operation, waiting time, perceived low quality, gender of providers, lack of courtesy, required under-the-table payments) may deter patients from using services. Is the organization of health activities good and friendly to poor clients? In *Voices of the Poor*, public health facilities were frequently criticized for their long waiting times and rude staff. Patients in developing countries typically have to wait several hours to get services in the public sector. Studies in Benin and Guinea showed that perceived quality of care was considered linked to three main characteristics: availability of drugs; waiting time; and empathy of the health staff.

Some studies have shown that basic services were used in a larger extent when providers are female than when they are male. Studies of the length of waiting time, household surveys and qualitative consultation exercises are a useful means of shedding light on this issue. (It is useful to note that “organizational quality” may also be referred to as “perception of quality,” a key part of user satisfaction.)
Measuring organizational quality can be done through in-facility surveys and exit surveys. Another indirect way of measuring perceived quality of care is to examine the utilization of the private sector, which is usually competing at unsubsidized prices and whose perceived advantage from the users’ point of view often lays in its perceived high quality.

In Cameroon, perception of quality of services, particularly regarding waiting time and empathy leads the poor to use private services in a larger extent although those are not less pricey than public services.
Devising ways to give consumers "voice" in the management of government health facilities is one way to increase the extent to which health services treat them with respect. This can be done through citizen management committees or other structures. Innovations can be developed to introduce consumer satisfaction measures into the evaluation of staff—although this usually implies a more sophisticated personnel evaluation process than is typically found.

It may also be effective for the government to work with health advocacy groups to create and widely disseminate information about patients’ rights in the public health care system.
The next dimension has to do with whether the sector provides services that are relevant to the diseases that affect the population, especially the poor. Although a core package of interventions may be defined, these interventions may not be the ones that are provided in practice. It is therefore critical to examine the case mix of services units and assess whether priority is really given to the most relevant.

Health sector performance in raising or maintaining high utilization of essential interventions can be measured by assessing the quantity of services produced in specific areas and relate it to the income level of the population of this area. Such a mapping of equity of output production is currently conducted routinely in Mozambique. (In Mozambique an index is constructed using services basic information on children immunized, the proportion of women using antenatal services, and number of inpatient and outpatient visits.)
Some countries have been able to relate health services production to some measure of poverty. In Peru for example, the medical consultations and hospitalizations have been analyzed in relation to the poverty levels of the departments and linked to the health outcomes as measured by the infant mortality rate. The richer the department the higher was the production of services and the lower the infant mortality.
Most countries have defined a package of essential services to be provided to all included the poor, which include some subsidized services. The mix of services provided may however be more or less in line with the standard mix defined by the package.

The figure above illustrates this latter point. The primary care consultations mix has been compared between two countries - Benin and Mauritania - in which a rather similar core package of services had been defined. The epidemiological and demographic pattern are similar in both countries. Yet the analysis of the case mix shows that the Benin PHC system is more heavily oriented towards providing care to children less than 5 than the Mauritanian services. More than 60% of consultations are for adults in Mauritania, while this figure is else than 50% in Benin. Thirty six percent of visits are for children less than 5 in Benin, with only 22% in Mauritania.

It is therefore relatively clear that the PHC system in Benin, is more oriented towards serving children than in Mauritania, being more in line with the intended goal of poverty reduction of these two countries that include reduction in under 5 mortality rates.
This case mix production can be influenced and can change over time under the influence of specific policies and with the implementation of appropriate incentives. In Benin for example, utilization of services over the last 10 years has increased mainly among children less than 1 and 1 to 5.
Relevance of Services Mix

Pro-Poor Actions

- Establish core package, and consider financing on a capitated basis
- Focus government resources on core services only; encourage private sector to provide other services demanded
- Contract with NGOs, other private providers for delivery of core services

The key instrument for improving the relevance of services is to direct government financing and provision to a set of core services that correspond well to the basic health needs of the population, and are cost-effective. The first step is to define what is considered a core service—no easy task—and then to figure out how to finance it. In some countries this is done through capitation: either public or private providers are paid to deliver a set of services for a fixed sum, with reimbursement made per person (or per capita).

It is important to emphasize that while this is a potentially very strong instrument to focus resources on the services that are most beneficial to the poor, it is very difficult to do. There are always reasons for the current allocation of resources—political factors, historical forces, and the responsiveness of the system to demand for curative services (rather than the more cost-effective but less demanded preventive services). Simple recommendations regarding establishment of “basic packages” have to be backed up by analyses of current spending patterns, and a real assessment of what it would take to shift those patterns.
Timing and Continuity

Diagnostics

- **Typical problem**
  - Weak links with community structures

- **Typical reasons**
  - Lack of norms
  - Inadequate training
  - Poor supervision

- **Common indicator**
  - Immunization and ANC patterns among the poor
  - Qualitative study (situation analysis)

The next dimension is timing and continuity. Certain key health services—such as emergency obstetric care but also epidemic control measures—must be delivered in a timely manner. For other services, such as the completion of tuberculosis treatment or immunizations, continuity is an essential determinant of efficacy and outcome improvement. Do the poor benefit from timely and continuous services?

Breakdowns in the system along this dimension typically result from lack of norms, inadequate application of norms that do exist, inadequate training and poor supervision.

One indicator of continuity is the proportion of children who are fully immunized. This was used in a study of continuity of care in Benin, where it was found that this measure increased from just over 30% in 1988 to around 80% in 1996 for immunization services, thanks largely to the introduction of financial incentives to health staff provided on the basis of the rate of fully immunized children (DTP3).
Poor groups may also benefit less from continuous appropriate care. Not only do they use services in a lesser extent but they use them also with lesser intensity and inappropriate timing, therefore diminishing their effectiveness. In Mozambique for example, the poorest group’s coverage with DPT3 is overall lower than the richest group’s. Yet the gap is less important for DPT1. The drop-out rate between DPT1 and DPT3 accounts in fact for the largest part of the rich/poor gap in proportion of children fully immunized. Whereas 60% of the poorest 20% do use immunization services, less than 30% complete a full course. This has very important consequences in terms of strategies as reaching the poorest imply the organization of active channeling and defaulter tracking strategies, probably involving community activities as well as home visits.
Timing and Continuity

Pro-Poor Actions

- Establish formal avenues for community and civil society participation
- Mapping, canvassing, active channeling (Philippines, Zimbabwe)
- Improve pre- and in-service training
- Improve supervision

There are several actions that can be taken to improve timing and continuity of services. Again, the introduction of formal mechanisms for community/civil society participation can be useful. In addition, there are innovative approaches to identifying individuals in need of services, and then targeting outreach services directly toward them. This has been done effectively, for example, in the Philippines and Zimbabwe.

And, once again, the favorite interventions of better training and better supervision can have a positive effect. The benefits of training and supervision are greatest when these actions are focused on well-defined problems in timing and continuity, rather than on the general concept.
Several issues fall into the dimension of technical quality. Are the services provided to the poor of lower technical quality compared with those provided to the better-off population? Is a basic service of reasonable quality available to all? The term “technical quality” is meant to capture the variations across providers or patients in the impact of a particular service on health status.

Health facilities in developing countries—especially those serving the rural poor—are often plagued by low levels of training and competence.

Health facility surveys are useful for assessing the extent of this problem. Such surveys undertaken by WHO in the 1990s found that in Burundi only 2% of children with diarrhea were correctly diagnosed, compared to 78% in Vietnam. Amongst those correctly diagnosed, there were large variations across countries in the proportion correctly rehydrated, ranging from 0% in 6 (out of 34) countries to around 70% in Rwanda and Vietnam.

It seems likely that differences in the quality of care are likely to exist within countries too, with—one suspects—lower levels of quality in facilities serving poor people.
Poor groups or poor areas may also be receiving care of lesser technical quality, and less effective than richer groups. Information on this issue is however not easy to gather. One way could be for countries to relate some measures of technical quality of care in different regions/ facilities to some measurement of poverty of the population and users. Qualitative research and analysis of patient provider interactions can also be very useful. In Mauritania the first approach was used and some measures of technical quality (ie the respect of algorithms for diagnosis and treatments) were collected during supervision and related to the level of poverty of this region. No relationship was found between the technical quality of care of the public services and the poverty level of the region where the facilities were located. However, it is interesting to note that contrary to other indicators, urban richer areas were faring lower than average, when it came to respect of technical standards of quality.
The strategies used to improve technical quality must be linked to the specific deficiencies identified. A few ideas are presented on this slide:

The government can contract with private providers, with a clear understanding that performance measures linked to technical quality will be used to determine whether the contractor has complied with the terms of the contract.

Training can be used to increase rational drug use practices, and to more effectively apply service delivery norms for specific services (i.e., the number of prenatal visits, the components of a well-child visit, etc.)

Importantly, improved supervision is key to ensuring that benefits of training are reflected in practice.
A dimension of health system performance that is difficult to measure but essential is social accountability. To what extent are health systems and service providers accountable to their clients and communities, and in particular, to their poor clients?

Consultation exercises are an especially useful tool for getting evidence on this. Surveys can also be conducted to measure the extent to which joint management contributes to local decision-making. A survey conducted in Benin in the early 1990s showed for example that about one third of the health management committees were truly triggering genuine accountability to users, while one third was considered somewhat functional and the last third was only a matter of token presence.
The degree to which services are accountable to users and population as a whole may also be influenced by the level of education and economic power of the households they serve. Accountability was measured in Mauritania as the proportion of village health committees holding regular meetings.

Although this may appear as a rather weak indicator for such an important and broad dimension, this was at least an attempt to define in quantitative terms the level of participation of some broad population’s representatives in health related issues.

Data showed an overall quite low level of participation. Yet participation was even lower in the poorer regions, calling for an enhanced level of support to build involvement of communities and households in these regions.
Social Accountability

Pro-Poor Actions

- Establish and/or improve formal avenues for community and civil society participation (such as management committees, hospital or regional health boards,)
- Affirmative action actively promote participation of vulnerable groups in these institutions (women, minorities, poor communities, patients-PLWAs)

As noted before, the establishment or revitalization of formal avenues for community participation can be a powerful instrument to improve social accountability.

In Benin, for example, revision of the election modes and provision of incentives for women to participate in these committees contributes to improving the situation and health committees have grown into powerful forces in the Benin health system today.
At this point, we have gone through each of the eight steps to effective coverage, and highlighted the ways in which health systems often fail to serve the poor in low-income countries. It’s worth running through each of the dimensions again, and highlighting the key strategies to improve the situation.
These various dimensions of performance can be analyzed relative to each other, and the performance can be compared between regions. This comparison allows to identify which specific hurdle hampers the performance of services towards the poor in each region. In the above example of Cameroon, one region has a good level of access and availability of resources, yet utilization remains disappointedly low. In other regions, problems of physical access are still undermining the performance, and in the third regions, problems of availability of resources, both human and material compel the problem of low access.

This analysis shows that each region needs a different emphasis when it comes to designing strategies to improve performance. For some of them investments need to be made to improve access and availability of staff and consumables. For others, activities need to support demand creation and raise utilization.
Now we turn to the topic of health financing and the poor: How do decisions about who pays, how much they pay, and what they pay for affect the ability of the health system to meet the needs (and demands) of poor citizens?

As you can imagine, this is a topic that requires a session unto itself--if not a full course. The best we can do here is highlight the major issues, and whet your appetite for more detailed information from other sources.
Core Questions for Overview of Health Financing

- **Patterns of government spending**: On what, for whom? [allocative efficiency, technical and input efficiency, equity]
- **Sources and mechanisms of financing**: Who pays for health services, what kind, and delivered by whom (government, commercial, non-profit)
  - **User fees**: Who pays, how much and for what services?
  - **Insurance**: Who is covered, and what is in the benefit package?

We turn away from the eight dimensions of health sector performance to the questions of what the government is paying for in the health sector, and what the other sources of financing are. In the answers to these questions, which address the financing structure of the system, often find explanations for the poor performance that we observe and assess systematically in the PRSP process.

First, let's explore patterns of government spending, and later turn our attention to the financing mix.

This discussion may raise more problems than it solves--and we ask that you be patient because the "solutions" will be discussed in Session 6, on policy issues.
Allocative Efficiency

• Key question:
  – Is the public spending focused on pure (or nearly pure) public goods?
  – Is the public spending focused on activities that are most likely to contribute to impact health status and therefore economic development and poverty reduction?
  – Is the public spending focused on activities that are most likely to benefit the poor?

• Analytic tool:
  – Public expenditures review
    • How much, and for what?
  – Sub-national budgets
    • How much, for what…and where

The essential question is what the government is spending its precious resources on: the types of services that most benefit society at large? Or services that largely provide private benefits?

In health, unlike in the other social sectors, there are some pure (or nearly pure) public goods that virtually require public financing if they are to be provided adequately. These include public health and preventive services, whose benefits reach the public at large as opposed to being captured by specific individuals (e.g. vector control, communicable disease surveillance and management, immunizations, environmental health and so on). Slack in these programs will not be taken up by private expenditures. These are perhaps the highest priority expenditures.

The next level of importance is basic clinical and acute services. Emphasis can be put on: (a) services that contribute synergistically to increased returns in education and investments, economic growth and poverty reduction such as reduction in infant mortality, and fertility control; and (b) on those services that benefit the poor the most such as reproductive health services (women being on average poorer than men) or children, when a large number of the poor are children.

This infrastructure or something like it is also required to provide public health services and to provide one outlet for subsidized health services for the poor (which could also be funded through NGOs or private providers, but typically is not). An efficient clinic system, characterized by a reasonable level of quality and patient satisfaction, is the next priority.

Finally, higher level, costly hospital services provide a measure of safety to the population in case of catastrophe. In a resource-constrained environment of a low-income country, as much of the cost of these services as possible needs to be shifted off the government budget or it will crowd out pure public goods and basic clinical services, although provision should be made for essential hospital care.

The key analytic tool for looking at whether the government is spending its money on pure (or nearly pure) public goods, plus basic clinical and acute services, is a public expenditures review of the health sector.
Studies conducted by Gwatkin et al, have shown that the ratio of mortality between rich and poor varies among age groups and for different types of diseases. Poor groups are more affected by communicable diseases and this is particularly acute among children. This provides a rationale for focussing on communicable disease and on younger age groups when attempting overall to re-orient expenditures towards the poor.
Typically, we find the paradoxical situation of the government spending relatively large amounts on low-impact services that benefit few, and relatively small amounts on the community-oriented, traditional public health interventions that should be its highest priority.

In general, this situation is a result of an under-resourced government trying to provide a complete set of services to all. Inevitably, costly hospital services--usually in urban areas--benefit, at the expense of less politically visible services in poorer areas.
Improving allocative efficiency is a huge challenge, largely because--as noted earlier--the current spending patterns are in place for a *reason*, and are thus often resistant to rapid change.

However, it may be possible to target spending--and particularly fresh, marginal resources--to financing of interventions targeted at children under 5, and reproductive-age women. In addition, there are strong arguments favoring increased spending on communicable disease control.
Technical Efficiency Diagnostics

- **Typical problems**
  - Unreliable, insufficient funding of key inputs (drugs)
  - Low utilization of government services

- **Typical reasons**
  - Inappropriate mix of inputs: eg salaries crowding out other inputs, non-salary recurrent “recycled” into staff incentives
  - Poor input management
  - Vicious cycle of poor quality-under-utilization

- **Analytic tools**
  - Public expenditure reviews
  - Analysis of utilization
  - Public-private comparisons

Technical efficiency has to do with whether the input mix is the most efficient for production of health services. It is closely linked to the earlier second and third steps in the diagnostic staircase—the availability of human and material resources.

There are a few special features to watch for. First, how high are administrative costs? Usually these will be much less than 10 percent of the health budget. Red flags should start emerging, however, at 5%. Second, often there are obvious disasters on the input side. In the 1980s in Peru, salaries consumed nearly 100% of expenditures at the clinic level, so the system delivered virtually nothing more than the warm bodies of nurses and doctors. These warm bodies were able to produce little without other inputs. In the high-salary, expensive U.S. health system that nevertheless must be able to deliver services to attract patients in a competitive market, salary expenditures at the hospital level tend to hover around 50-55% of costs. In developing countries, a ratio this low is rare. To reduce the fraction paid in salaries will require either that budgets rise for non-salary costs or that salary costs are cut. Either way, to change the input mix into something that can deliver services will require radical reallocations in most developing country expenditure patterns.

Third, it important to remember that salaries are not the only input. At the facility level, it is important to assess the efficiency of use of capital and equipment. Have past investment policies produced a system with many underused and poorly maintained buildings? Does equipment stand idle or in need of repair? The solution requires not only increases in repair and maintenance costs but often also requires difficult decisions about closing down facilities, seeking management by nongovernmental entities of facilities the government cannot maintain, and changes in incentives that lead to excess capacity and inadequate maintenance.

Fourth, utilization is an important but rarely addressed issue in the efficiency of government services, which is often addressed solely on the input side. Are there any patients? If a doctor or nurse is seeing 4-5 patients a day, or if a hospital is at 30% bed occupancy, the government is literally throwing away a share of its health budget. OECD physicians see 30-40 patients a day and hospitals should have at least an 80% bed occupancy level on average.

A problem in poor countries without adequate transportation infrastructure (requiring a more extensive system to provide access) is that the worst utilization statistics will be in rural areas. Utilization analysis can help by making the efficiency cost versus equity-enhancing tradeoffs of such decisions explicit. Even in the most tightly constrained system, there are often large potential efficiency gains that can be made through alternative contracting mechanisms, and tough decisions to close non-performing assets so that a smaller system can be allowed to function properly.

It is usually very instructive to mount a small study within the country to compare the performance of different types of service providers (government, private, charitable) working within the same environment. This can be done at reasonably fast and inexpensively.
The right policy recommendations to improve technical efficiency depend greatly on the specific problems diagnosed. In general, however, there is potential for improving the structure of incentives for health staff; developing transparent management systems; establishing and enforcing standards for service delivery; and regulatory action.
### Equity in Spending

#### Diagnostics

- **Typical problems**
  - Regressive distribution of government health spending
  - Relative to their health needs, funding for women’s health care is lower than funding for men’s

- **Typical reasons**
  - Inequitable distribution of resources
  - Urban elite capture government resources
  - Lack of information about health needs, gaps

- **Common indicators**
  - Public spending and/or utilization of specific services x income group (benefit-incidence)

It is no surprise that when we look at whether the rich or the poor benefit the most from public spending, it is usually the case that the poor benefit a lot—but the rich benefit even more, particularly when looking at hospital services. Taking into consideration the greater health needs of the poor, due to their environmental and other risk factors, the distribution of public resources is even more skewed.

Benefit-incidence analysis is a tool that uses information about expenditures on specific services (per unit) and utilization by different income groups to estimate the distribution of the benefits of public spending. Ideally, information about tax incidence is incorporated in the analysis, so we can see the net distribution of resources.
There are three basic steps to produce benefit-incidence analysis. The core data required is: (a) Information about utilization of specific types of publicly-financed services (e.g., preventive, basic curative, higher-level hospital) by income group. This typically comes from household surveys. And (b) Information about how much the government spends on those same types of services, per unit.

Given this information, the idea of benefit-incidence analysis is as follows:

First, you estimate the unit cost to the public sector of providing a service. Second, you impute the unit subsidy (cost) to households or individuals that use the service. Finally, you build up population estimates, based on the distribution of the income groups in the population. What you end up with is an estimate of how much the government «transfers» to various income groups via its support of health services.

The beauty of benefit-incidence analysis is that it often shows indisputable evidence of mistargeting of public funds—and demonstrates a «disconnect» between the political rhetoric and the reality for the poor.
### Percentage of Financial Subsidy from Government Health Services Accruing to Poorest and Richest 20%

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Primary care Poorest 20%</th>
<th>Primary care Richest 20%</th>
<th>Total Health Care Poorest 20%</th>
<th>Total Health Care Richest 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote d’Ivoire</td>
<td>1995</td>
<td>14</td>
<td>22</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>Ghana</td>
<td>1992</td>
<td>10</td>
<td>31</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Guinea</td>
<td>1994</td>
<td>10</td>
<td>36</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td>Kenya (Rural)</td>
<td>1993</td>
<td>22</td>
<td>14</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Madagascar</td>
<td>1993</td>
<td>10</td>
<td>29</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>South Africa</td>
<td>1994</td>
<td>18</td>
<td>10</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Tanzania</td>
<td>1993</td>
<td>18</td>
<td>21</td>
<td>17</td>
<td>29</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1990</td>
<td>18</td>
<td>16</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1993</td>
<td>20</td>
<td>10</td>
<td>12</td>
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</tr>
<tr>
<td>Bulgaria</td>
<td>1995</td>
<td>16</td>
<td>21</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Romania</td>
<td>n.a.</td>
<td>16</td>
<td>22</td>
<td>12</td>
<td>29</td>
</tr>
</tbody>
</table>

(Source: data assembled from variety of sources by Gwatkin 2000)

Considerable work has been done to prepare benefit-incidence analyses recently, and they are illuminating in large part because of the differences across countries. For example, you can see that in Guinea for primary care, the poorest 20 percent of the population receive about 10 percent of the benefits of public spending, while the richest 20 percent obtains 36 percent of the benefits. An even more extreme distribution is evident for all health services. In contrast, in Vietnam, we see a relatively progressive pattern for public health spending, with the poorest 20 percent obtaining 20 percent of the benefits of public spending on primary care, and the best-off 20 percent of households obtaining only about 10 percent of the benefits of public spending.
As with allocative efficiency, changing the pattern of government spending often is slowed by large obstacles. Rhetoric aside, a substantial portion of the world’s governments have a very hard time focusing resources on the poor, in large part because of the political cost they may face in doing so.

However, it is worth exploring the possibility to redirect transfers on the basis of a formula that takes into consideration health and poverty indicators--this is becoming increasingly popular in the era of decentralization. In addition, it may be possible to mobilize resources for “catch up” actions, directed at geographic areas or population groups that are clearly disadvantaged.

There is also potential for transfers and demand-side mechanisms such as equity funds to have a salutary effect on benefit-incidence.
Core Questions for Overview of Health Financing

- **Patterns of government spending**: On what, for whom? [allocative efficiency, equity]
- **Sources of financing**: Who pays for health services, what kind, and delivered by whom (government, commercial, non-profit)
  - **User fees**: Who pays, how much and for what services?
  - **Insurance**: Who is covered, and what is in the benefit package?

Now we move beyond the patterns of government spending, and look more broadly at overall sources of financing in the health sector--and how they may or may not serve the poor.
Sources of Financing

Diagnostics

- **Typical problems**
  - Formal user fees are unaffordable
  - Side payments are unaffordable
  - Insurance serves only urban elite, formal sector workers
  - Insurance coverage is inadequate even for beneficiaries
  - Exemptions are used for influential individuals

- **Typical reasons**
  - Exemption mechanisms are too cumbersome, Health workers compensate for low pay with side payments
  - Failures in insurance market, lack of grouping mechanisms

- **Typical indicators**
  - HH spending on health services x income, residence (absolute and relative to total income)
  - Insurance coverage x income, residence
  - Average co-payments for various basic services

As an overview, it is useful to indicate what we often see in low-income countries: That the poor are burdened not so much by formal user fees at government health facilities, but by the side payments. However, it is also the case that for some services--for example, childhood immunization, formal user fees can be a deterrent to utilization. We also find that health insurance coverage benefits only the better off and/or formal sector workers. And even for that population, the insurance coverage typically is incomplete.

Household surveys are invaluable tools in understanding how health services are financed. Examination of health insurance coverage, sources of health services and health expenditures by income group are all extremely useful. In general, household surveys are far more useful for examining health financing than are public sector or insurance administrative records.
In all countries, poorer groups spend less on average than richer groups on health. Interestingly, the largest differences between countries are mainly found among the richest quintiles. In all countries, poor groups spend very little on health.
Yet, even if poor groups spend little on health, these expenditures may be nonetheless a high burden on their income and have an impoverishing effect. This is the case in Thailand and Paraguay above, where poor people spend proportionally more on health than richer groups.
Health insurance may or may not benefit the poor. In many countries insurance schemes benefit primarily the richest groups. Yet some countries have succeeded in establishing schemes that prove to be quite progressive. This is the case of Thailand for example where the combination of enrollment in the low income and voluntary health card scheme prove to primarily benefit the poor.
Other countries are less successful. In Senegal for example, the members of a prepayment scheme were found on average to be richer than the non members.
There are several important questions to seek answers to.

For example, what do the poor pay out-of-pocket? And what is the exemption mechanism? How well is it enforced? And how costly is it to administer?

Who is covered by insurance? Health insurance provides a way of both increasing utilization of health services (by reducing the cost at the point of use) and reducing the impact on household incomes of service utilization. The question of “Who is covered?” is important since insurance coverage or lack of it affects the amount of money people pay out of pocket for health care, which affects their usage of health services and the amount they have left for other consumption after they have used them. The first questions to answer here, then, are: What schemes operate? Who is covered by each? And, how does the coverage vary across poverty groups?

What is covered by insurance? In both the public and private sectors, there will be some element of “risk pooling”, except in the case of the private sector when there is no insurance of any kind. For example, premiums collected by an insurer from all enrollees will be pooled and used to finance claims from those enrollees who fall ill and seek treatment. The size of the pool and its diversity will influence the benefits offered and the level of premiums and copayments. For example, a small-scale community-financing scheme in a poor rural area will not be able to offer very generous benefits per dollar of premium without large copayments, since the probability of illness will be fairly high across the pool. By contrast, a government-run compulsory tax-financed scheme will be able to offer more generous benefits per dollar of tax revenue, since the risk pool will be larger and more heterogeneous, and its average risk will be lower. Against this has to be set the greater complexity associated with a large pool and the lower degree of control exerted by the poor. The next questions to answer, then, are: What do the different schemes cover, and what do they leave uncovered? Are the poor covered against the potentially impoverishing costs of catastrophic illnesses? Of course, in the case of public insurance, what is and is not covered may not be written down. For example, the health background document for the Tanzania PRSP noted that as public funding for public clinics has declined, the range and quality of services offered by rural clinics has declined, thereby reducing effective insurance coverage, and forcing people to seek treatment with NGOs or private providers.
Key Questions (2)

- How much risk-sharing exists?
  - What are the co-payments?
- How much does insurance coverage cost?
  - Property, income, payroll taxes?
  - Private premiums (employer, household)?
- What is the cost of services not covered by insurance?

How much risk-sharing is there? In many schemes, coverage will not be complete and the enrollee will be liable for a copayment in the form of a user fee. How large are such fees? Are they affordable for the poor? This can be answered by calculating the average user fee per unit of utilization (e.g. inpatient day, outpatient visit) and expressing it as a proportion of household income. This can be done for different incomes—say, for the average income of the poorest 20%, the next poorest 20%, and so on. For example, in Vietnam in 1998, the average user charge per spell of inpatient care in a public hospital was equivalent to 45% of the poorest quintile’s average annual non-food expenditure. The figure for the richest quintile was just 4%. Even a visit to a polyclinic absorbed 9% of the poorest quintile’s average annual non-food expenditure. Of course, fees may not be the same for everyone in a particular scheme. Are there any fee-waiver schemes in operation? What proportion of the poor and other groups benefit from them? Are there differences between those who are beneficiaries in principle and those who are beneficiaries in practice? In some cases, there may be a gap between notional insurance coverage and effective coverage because of informal and/or under-the-table payments. Is there any evidence on how large they are? The preparatory work for Mozambique’s PRSP, for example, suggested that informal payments “play probably the most important role in hampering access of the population to curative services” but acknowledged that “no valid systematic research has been carried out on the topic”.

How much do people pay for health insurance? Health insurance—whether public or private—has to be financed somehow. An MoH scheme might be financed principally through taxes. A social insurance scheme might be financed though payroll taxes, though it is not uncommon for general tax revenues to be used to subsidize the scheme. A private insurance scheme will typically be financed through insurance premiums, though here too there may be a tax subsidy. Community-financing schemes are financed through contributions from members, sometimes with co-financing from a donor or government. It is important to know how much different poverty groups pay into these different schemes, and how far the costs of enrollment in voluntary schemes might act as a deterrent to poor people joining them. So, are taxes, social insurance contributions and private insurance premiums a burden to poor households? Do premiums deter the poor from enrolling?

What is the cost of services not covered by insurance? What do households—especially poor ones—pay for services for which they are not covered? Is there evidence that lack of coverage for these services deters them from using services? Are they affordable for the poor? Again, this can be answered by calculating the average out-of-pocket payment per unit of utilization and expressing it as a proportion of household income, for different incomes.
## Sources of Financing

### Pro-Poor Actions

- **Pricing policy that reduces and/or eliminate user fees for basic services**
- **Cross-subsidization**
- **Strengthen exemption mechanisms**
- **Expand social insurance to cover informal sector workers**
- **Develop community financing arrangements**
- **Develop equity funds to pay for the poor (copayments and/or prepayments)**

There are numerous ways governments, employers, private companies and communities can reduce the amount households pay out of pocket when they use health services. Governments can have low user fees or do away with them altogether and instead finance the use of health services through taxation. If they do levy fees, they might try to exempt certain groups—such as the poor—through fee-waiver schemes. These schemes have to be financed, of course—through, for example, tax revenues. The government might instead, or as well, have a social insurance scheme for formal sector workers. Employers might have their own health insurance schemes, arranged in-house or through a private insurer, with workers paying through wage deductions. Private insurers may offer coverage with insurees paying premiums to the insurer. Communities may offer a community-financing scheme whereby those enrolled pay a membership fee or premium to the scheme and in return have lower user charges when they use the services covered by the scheme. What all of these schemes have in common is that people enrolled in—or covered by—the scheme do not pay the full cost to service providers at the point of use, and the shortfall is financed, in the first instance, by the third-party payer, but ultimately by households through, for example, premiums, contributions or taxes. All of these schemes are, in effect, insurance schemes of one type or another, even though they may not usually be thought of as such.
This Session’s Messages

- How well the health system meets the needs of the poor can be assessed systematically, looking at a full range of determinants of effective coverage.
- Specific dimensions of health system financing are essential in understanding how to improve the health of the poor.

There are two major lessons or messages from today’s session. First, How well the health system meets the needs of the poor can be assessed systematically, looking at a full range of determinants of effective coverage. We hope that you find the “staircase” of eight dimensions of health system performance to be a useful and manageable framework for diagnosis and development of policy options.

Second, specific dimensions of health system financing are essential in understanding how to improve the health of the poor. Although we have not been able to cover this topic in depth, we hope that you have learned enough to understand the basic scope of health financing questions--and that you are motivated to dig a little deeper in your country of interest. Many of the policy issues that are very closely related to the financing questions will be covered in detail in Session 6.